

# HTC-D209/D309

## SERVICE MANUAL

*AEP Model  
UK Model  
E Model  
Australian Model*



Photo: HTC-D209

HTC-D209 is the compact disc deck in LBT-A27CD / A27CDK / D209CD.

HTC-D309 is the compact disc deck in LBT-A37CD / A37CDK / D309CD.

### SPECIFICATIONS

#### Cassette deck

Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF
	With Type II cassette (Sony UX-S) 40 Hz to 14 kHz ( $\pm 3$ dB)
	With Type I cassette (Sony HF-S) 40 Hz to 13 kHz ( $\pm 3$ dB)
Wow and flutter	W.PEAK $\pm 0.2\%$ (DIN)

#### Compact disc player

Laser	Semiconducotr laser ( $\lambda = 780$ nm)
Laser output	Max. 44.6 $\mu$ W*
	* This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response	2 Hz to 20 kHz $\pm 0.5$ dB
Signal-to-noise ratio	More than 93 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.008% (1 kHz)
Channel separation	More than 90 dB (1 kHz)
Mass	Approx. 5.1 kg
Dimensions	Approx. 355 $\times$ 225 $\times$ 305 mm (w/h/d, including projections)

CD Section	Model Name Using Similar Mechanism	HCD-D109
	Base Unit Name	BU-5BD1
DECK Section		Model Name Using Similar Mechanism HCD-H170/H170K /H700
	Tape Transport Mechanism	DECK A TCM-190RA12CL
	Type	DECK B TCM-190RB22CL

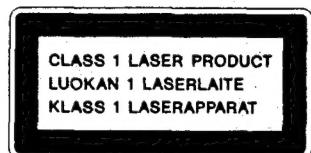
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

**COMPACT DISC DECK**  
**SONY**<sup>®</sup>



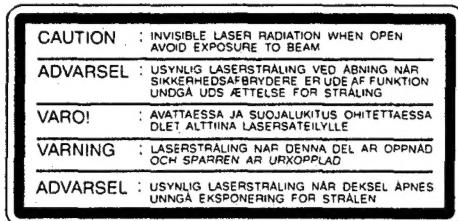
MICROFILM

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.



#### NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

#### NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30 cm away from the objective lens.

#### SAFETY-RELATED COMPONENT WARNING!!

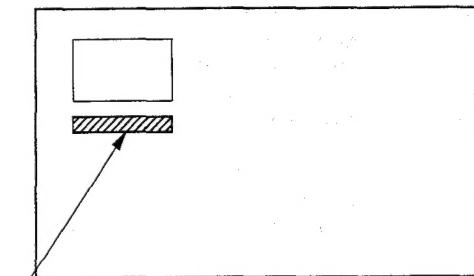
**COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

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#### MODEL IDENTIFICATION

Back Panel



4-955-819-01: HTC-D209 AEP, UK, Italian, Germany Models.

4-955-819-11: HTC-D209 E, East European, Malaysia, Singapore Models.

4-955-819-21: HTC-D209 Saudi Arabia, Australian Models.

4-955-819-31: HTC-D309 AEP, UK, Italian, Germany Models.

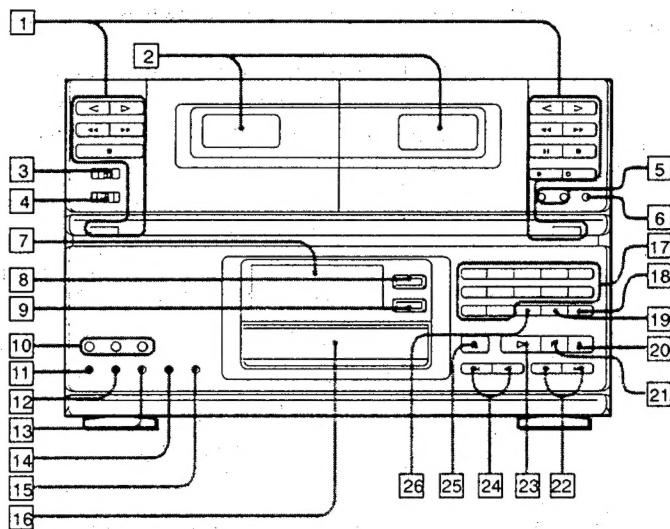
4-955-819-41: HTC-D309 E, East European, Malaysia, Singapore, CIS Models.

4-955-819-51: HTC-D309 Saudi Arabia, Australian Models.

This section is extracted from  
instruction manual.

## SECTION 1 GENERAL

### Location of Controls



#### Cassette Deck

- 1 Tape operation buttons
  - ◀◀ Leftward fast winding/AMS\*
  - ▶▶ Rightward fast winding/AMS\*
  - ▶ Forward play
  - ◀ Reverse play
  - Stop
  - ▲ EJECT
  - PAUSE (deck B only)
  - REC MUTE (record muting)  
(deck B only)
  - REC (record) (deck B only)
- 2 Cassette holders
- 3 DOLBY NR (noise reduction) switch (32, 80)
- 4 DIRECTION MODE selector (28, 32, 38, 80)
- 5 DUBBING SPEED (HIGH/NORMAL) button (38, 40)
- 6 CD SYNCHRO button (80, 84)

#### Compact Disc Player

- 7 Display window
- 8 EDIT/TIME FADE button (86, 88, 94)
- 9 TIME SET button (86, 94)
- 10 PLAY MODE buttons
  - PROGRAM button (54)
  - SHUFFLE button (50, 52)
  - CONTINUE button (52)
- 11 MUSIC SCAN button (58)
- 12 A.SPACE/A.CUE (auto space/auto cue) button (48, 96)
- 13 TIME button (44)
- 14 REPEAT button (60)
- 15 FADER button (92)
- 16 Disc tray
- 17 Numeric buttons (46, 52)
- 18 CLEAR (program clear) button (56)
- 19 CHECK (program check) button (56)
- 20 ■ (stop) button (42)
- 21 ■■ (pause) button (42)
- 22 ▲◀/▶▲ (manual search) buttons (46)
- 23 ▶ (play) button (42)
- 24 ▲◀/▶▲ (AMS\*) buttons (46)
- 25 OPEN/CLOSE ▲ button (42)
- 26 > 12 (over 12) button (46)

\* AMS is the abbreviation of Automatic Music Sensor.

## SECTION 2

### ADJUSTMENTS

#### 2-1. MECHANICAL ADJUSTMENTS

##### Precautions:

1. Clean the following parts with a denatured-alcohol-moisened swab:
 

record/playback/erase head	rubber belts
pinch roller	capstan
idler	
2. Demagnetize the record/playback head with a head demagnetizer. (Head demagnetizer do not approach for the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed in the rated power supply voltage unless otherwise noted.

##### Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	35 to 60g·cm (0.49 to 0.83 oz·inch)
FWD Back tension	CQ-102C	2 to 6g·cm (0.03 to 0.08 oz·inch)
REV	CQ-102RC	35 to 60g·cm (0.49 to 0.83 oz·inch)
REV Back tension	CQ-102RC	2 to 6g·cm (0.03 to 0.08 oz·inch)
FF, REV	CQ-201B	70 to 110g·cm (0.98 to 1.52 oz·inch)

#### 2-2. ELECTRICAL ADJUSTMENTS

**0 dB=0.775 V (AF)**

##### Precautions:

##### CASSETTE DECK SECTION

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
  - Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch : OFF  
TAPE : TYPE I

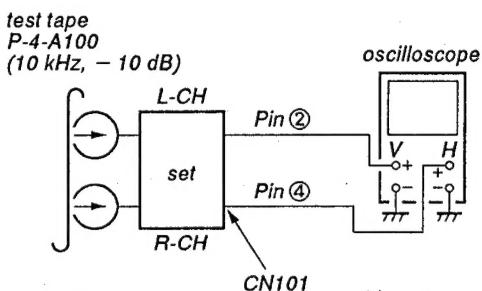
Type	Signal	Used for
P-4-A100	6.3kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

##### Record/Playback Head Azimuth Adjustment

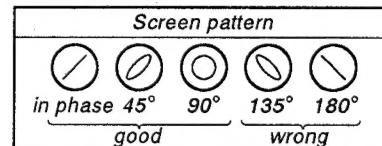
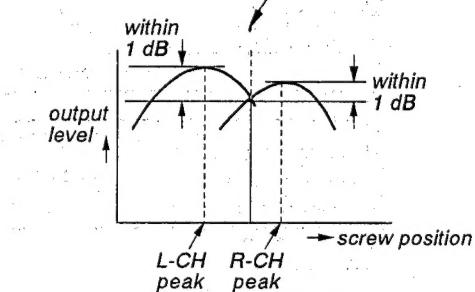
**Note :** Perform this adjustments for both decks.

##### Procedure :

1. Mode : FWD playback

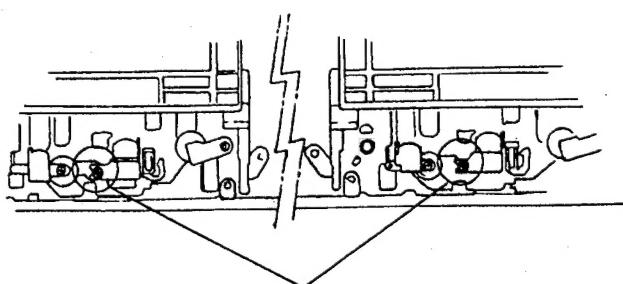


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



3. After the adjustments, apply suitable locking compound to the parts adjusted.

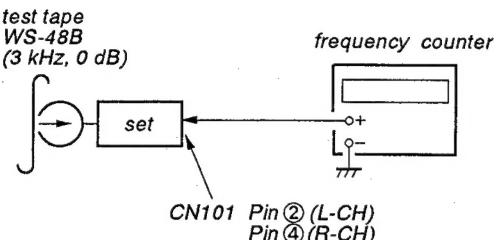
##### Adjustment Location :



### Tape Speed Adjustment DECK A DECK B

#### Procedure :

Mode : playback



#### • High speed adjustment (Must be first Adjustment B deck)

1. Push HIGH speed button.
2. Adjust RV71 so that the frequency counter reads  $6,000 \pm 30$  Hz.

#### • NORMAL speed adjustment

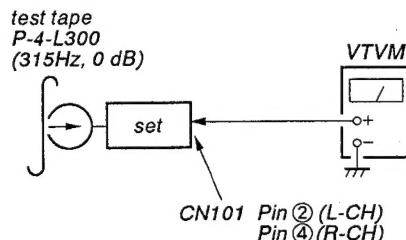
1. Push NORMAL speed button.
2. Adjust RV72 so that the frequency counter reads  $3,000 \pm 15$  Hz.

(See right for Adjusting Parts Location)

Frequency difference between deck A and deck B at the beginning of the tape should be within 1%.

### Playback Level Adjustment DECK A DECK B

#### Procedure :



Mode : FWD playback

DECK-A side RV11 (L-CH), RV21 (R-CH)  
DECK-B side RV11 (L-CH), RV21 (R-CH)

so that the limits below are satisfied.

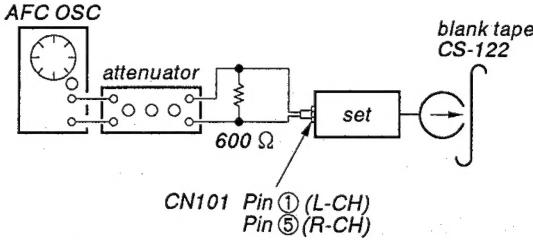
#### Adjustable limits :

CN101 level :  $-7.7 \pm 0.5$  dB (0.301 – 0.338)  
level difference between the channels : within 1.0dB  
(See right for Adjusting Parts Location)

### Record BIAS Current Adjustment DECK B

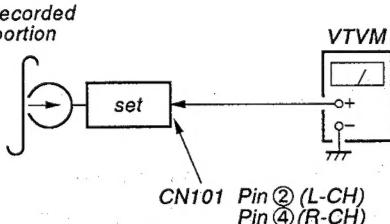
#### Procedure :

##### 1. Mode : record



1) 315 Hz  
2) 10 kHz – 27.5 dB (0.0327V)

##### 2. Mode : Playback



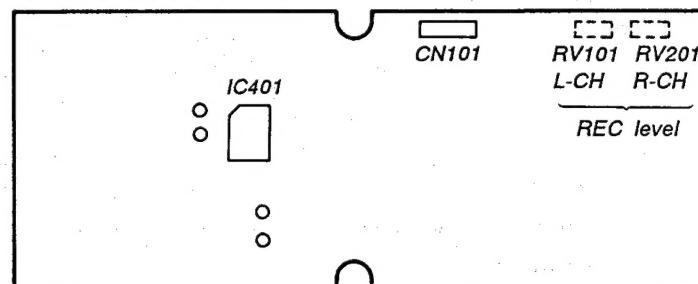
Playback the signal recorder in step 1.

Confirm that the 10kHz playback output is  $0 \pm 0.5$  dB relative to the 315Hz output. If necessary, adjust RV12 (L-CH), RV22 (R-CH) and repeat the steps given above.

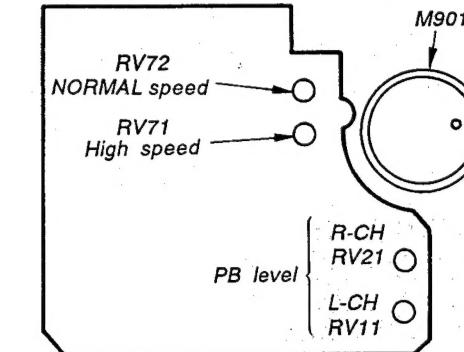
(See right for Adjusting Parts Location)

#### • Adjusting Parts Location

##### TC MAIN BOARD (Conductor Side)



##### AUDIO BOARD (Conductor Side)



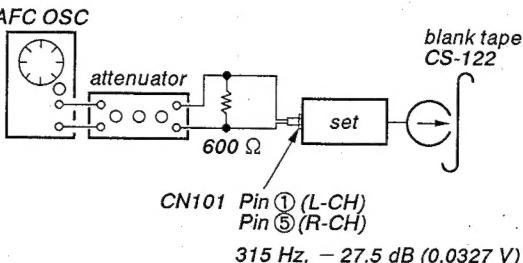
### Record Level Adjustment DECK B

#### Setting :

TAPE : TYPE I

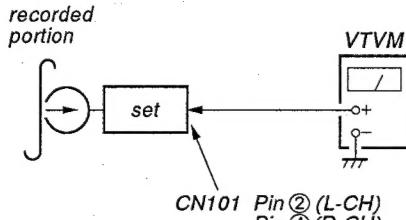
#### Procedure :

##### 1. Mode : record



315 Hz, – 27.5 dB (0.0327 V)

##### 2. Mode : playback



##### 3. Playback the signal recorded in step 1.

Confirm that the signal level is within the adjustment limits below. If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat the step 1-3.

Adjustable limits :  $-27.5 \pm 0.5$  dB (0.0309 – 0.0346)

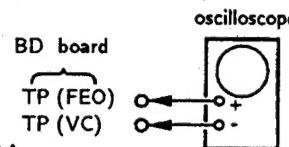
(See right for Adjusting Parts Location)

## CD SECTION

### Note :

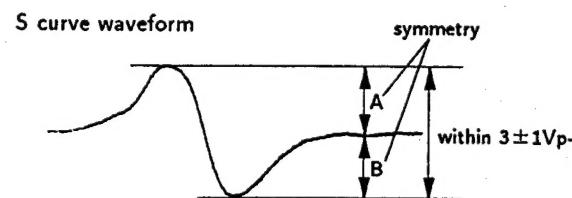
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than  $10M\Omega$  impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

### S Curve Check



#### Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within  $3 \pm 1V_{p-p}$ .

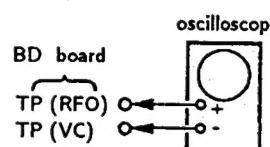


5. After check, remove the lead wire connected in step 2.

**Note :** • Try to mesure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.

• Take sweep time as long as possible and light up the brightness to obtain best waveform.

### RF Level Check

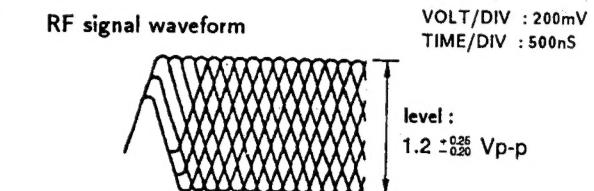


#### Procedure :

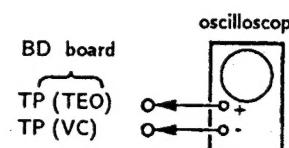
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

#### Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.



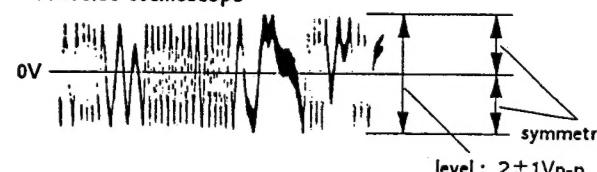
### E-F Balance Check



#### Procedure :

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the osilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

#### Traverse oscilloscope

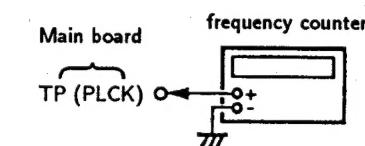


6. Remove the lead wire connected in step 1.

### RF PLL Free-run Frequency Check

#### Procedure :

1. Connect frequency counter to test point (PLCK) with lead wire.



2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4. 3218MHz.

### Focus/Tracking Gain

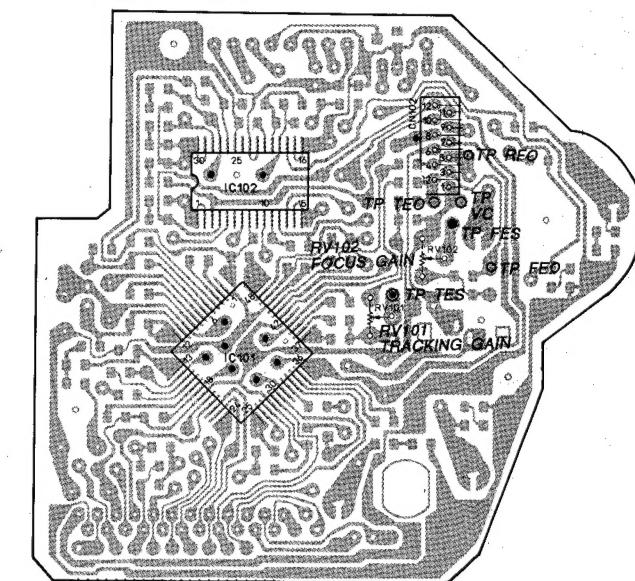
This gain has a margin, so even if it is slightly off. There is no problem.

Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

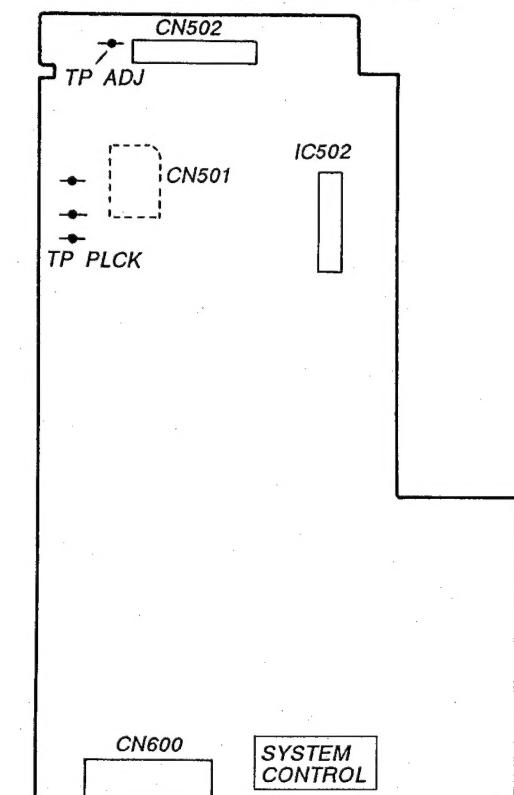
### Adjustment Locations : [BD board]

— conductor side —



### Adjustment Location :

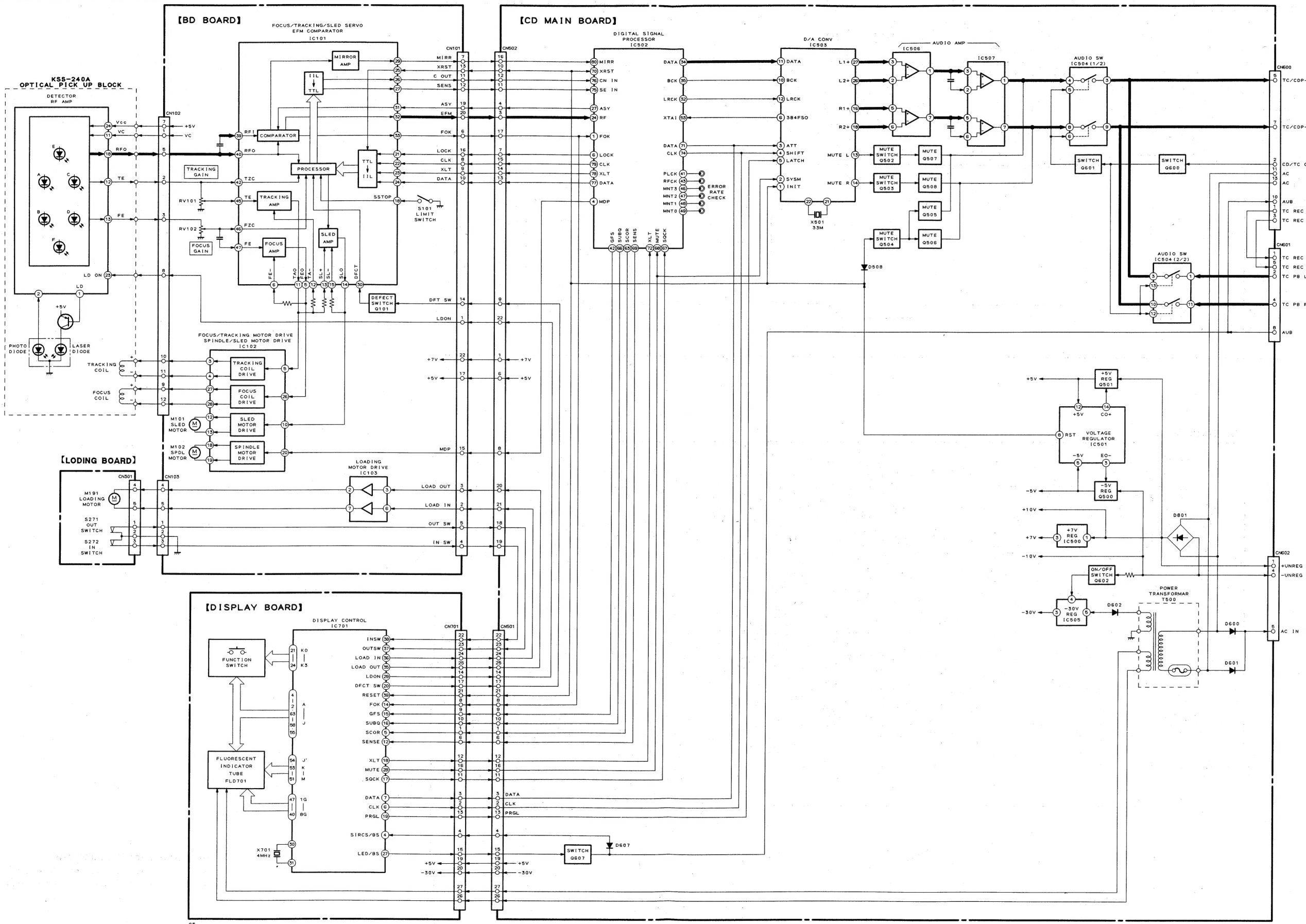
#### CD MAIN BOARD (Component Side)



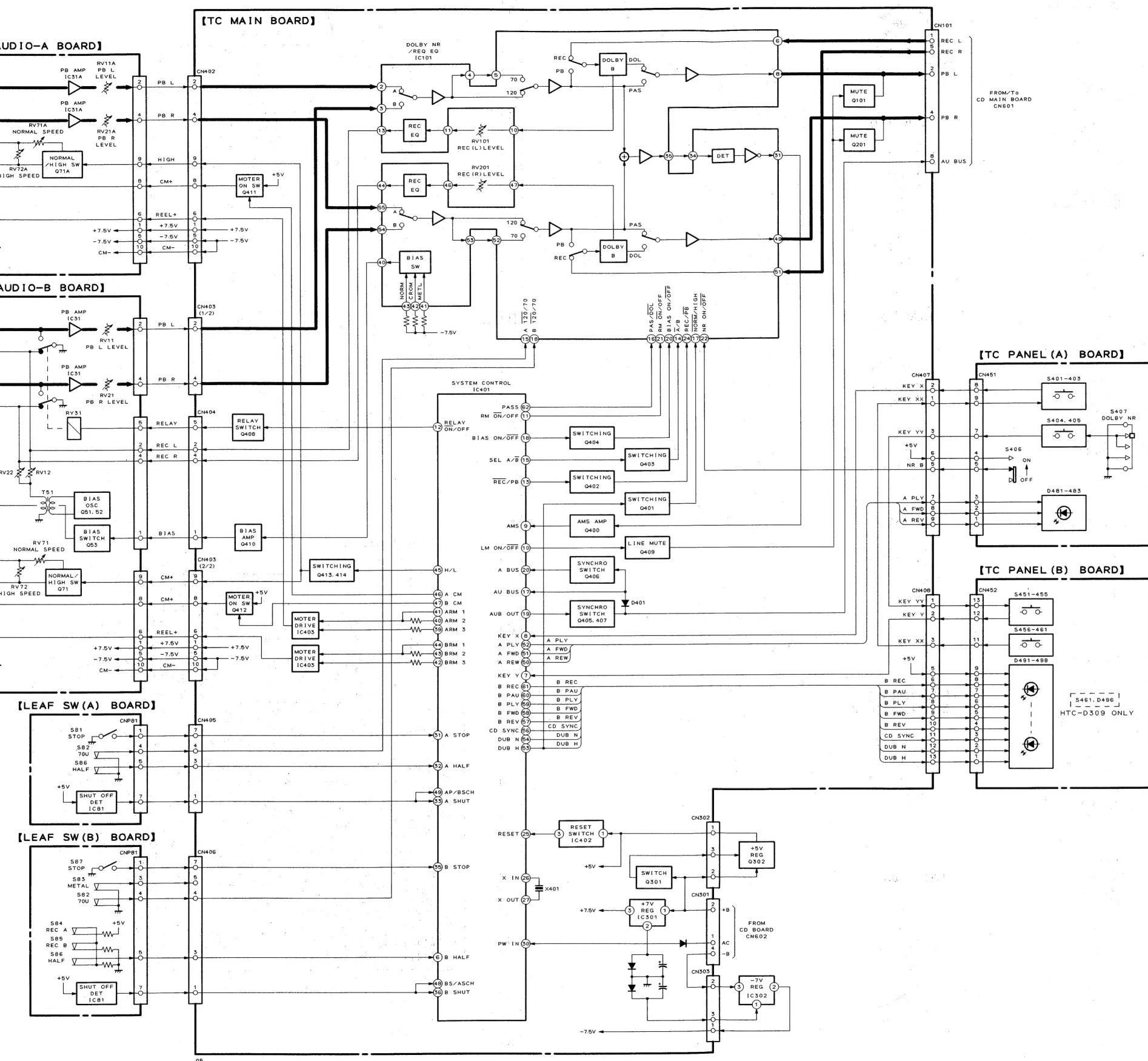
## SECTION 3

## DIAGRAMS

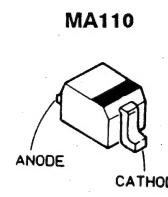
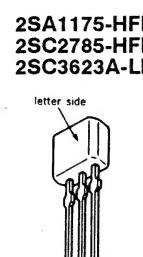
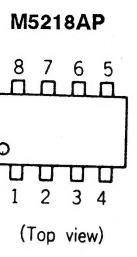
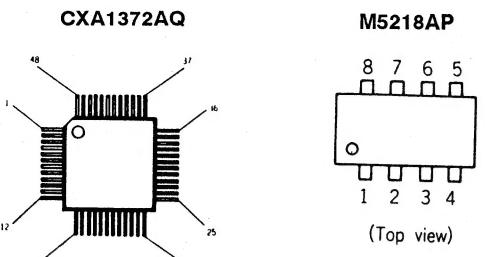
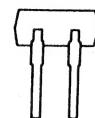
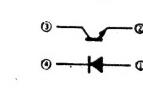
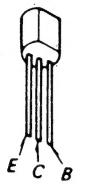
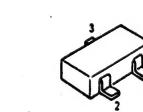
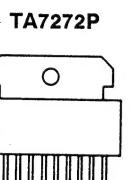
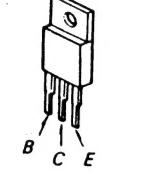
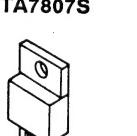
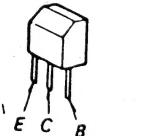
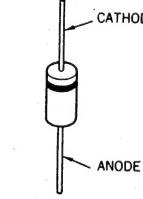
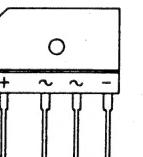
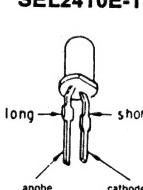
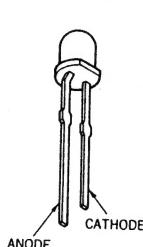
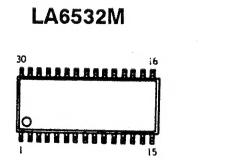
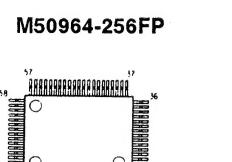
### 3-1. CD SECTION BLOCK DIAGRAM



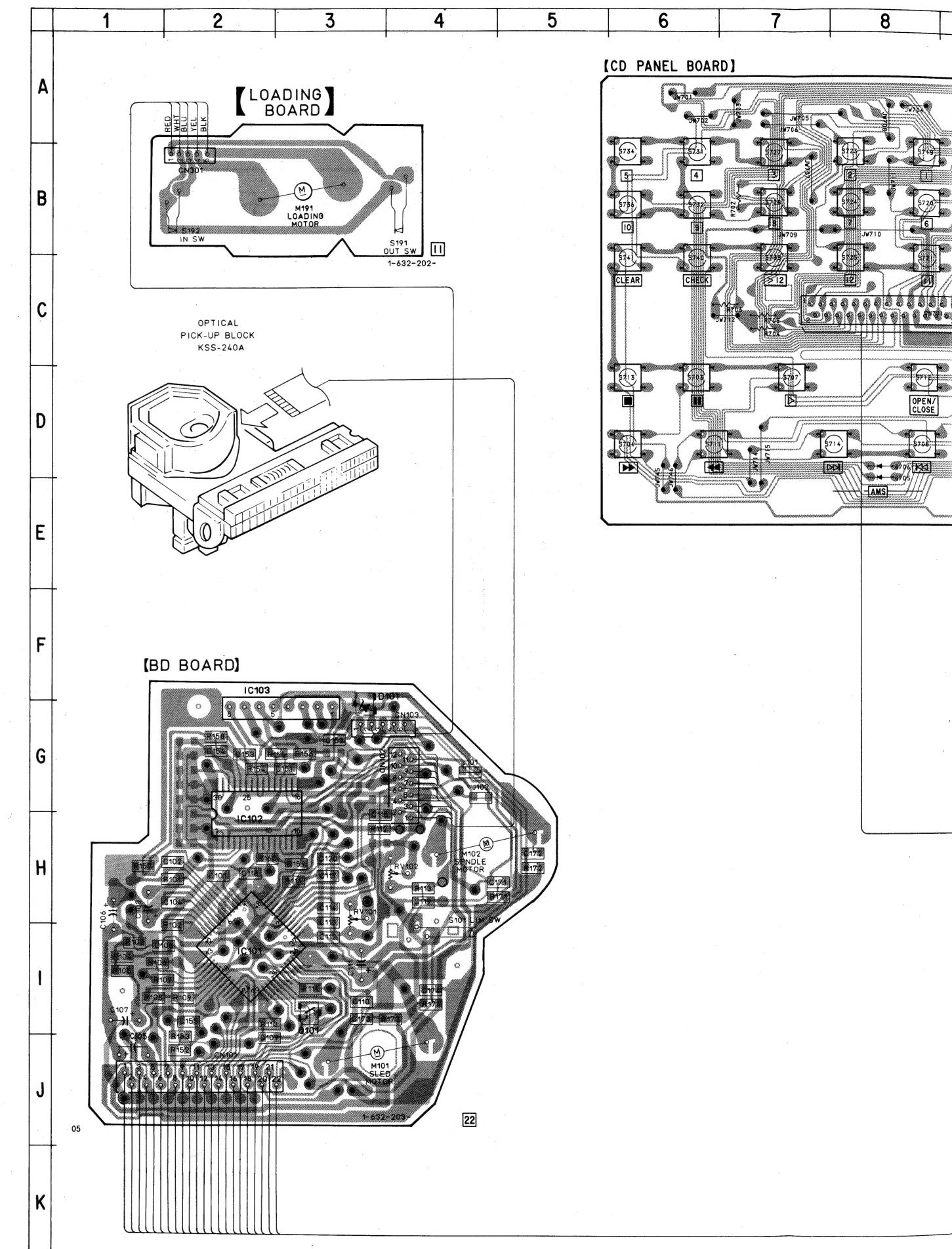
### 3-2. CASSETTE DECK SECTION BLOCK DIAGRAM



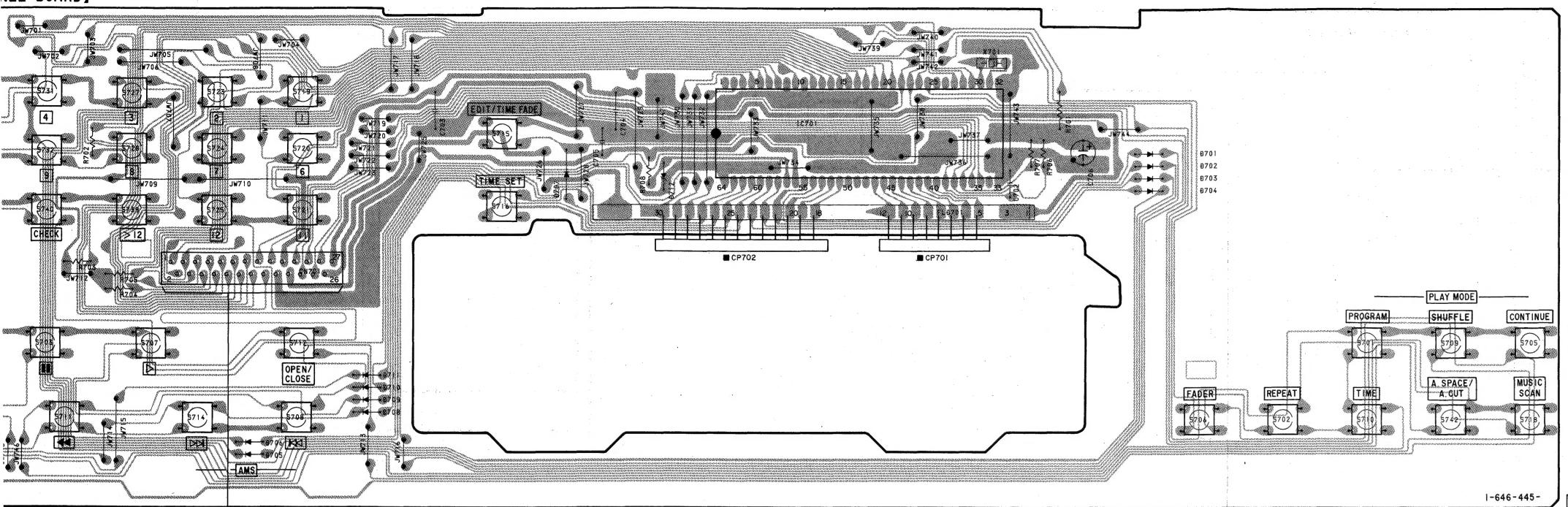
## • Semiconductor Lead Layouts

**NJL5165K-B****2SB1013-4**  
**2SD1616A-K****UZM4.7X****2SB1094-LK****2SD774-34****1N4148M****D2SB20****SEL2210S-CD**  
**SEL2410E-TH10****SEL2810A****TOP VIEW****TOP VIEW****TOP VIEW****TOP VIEW****TOP VIEW****TOP VIEW****TOP VIEW****TOP VIEW****TOP VIEW****TOP VIEW**

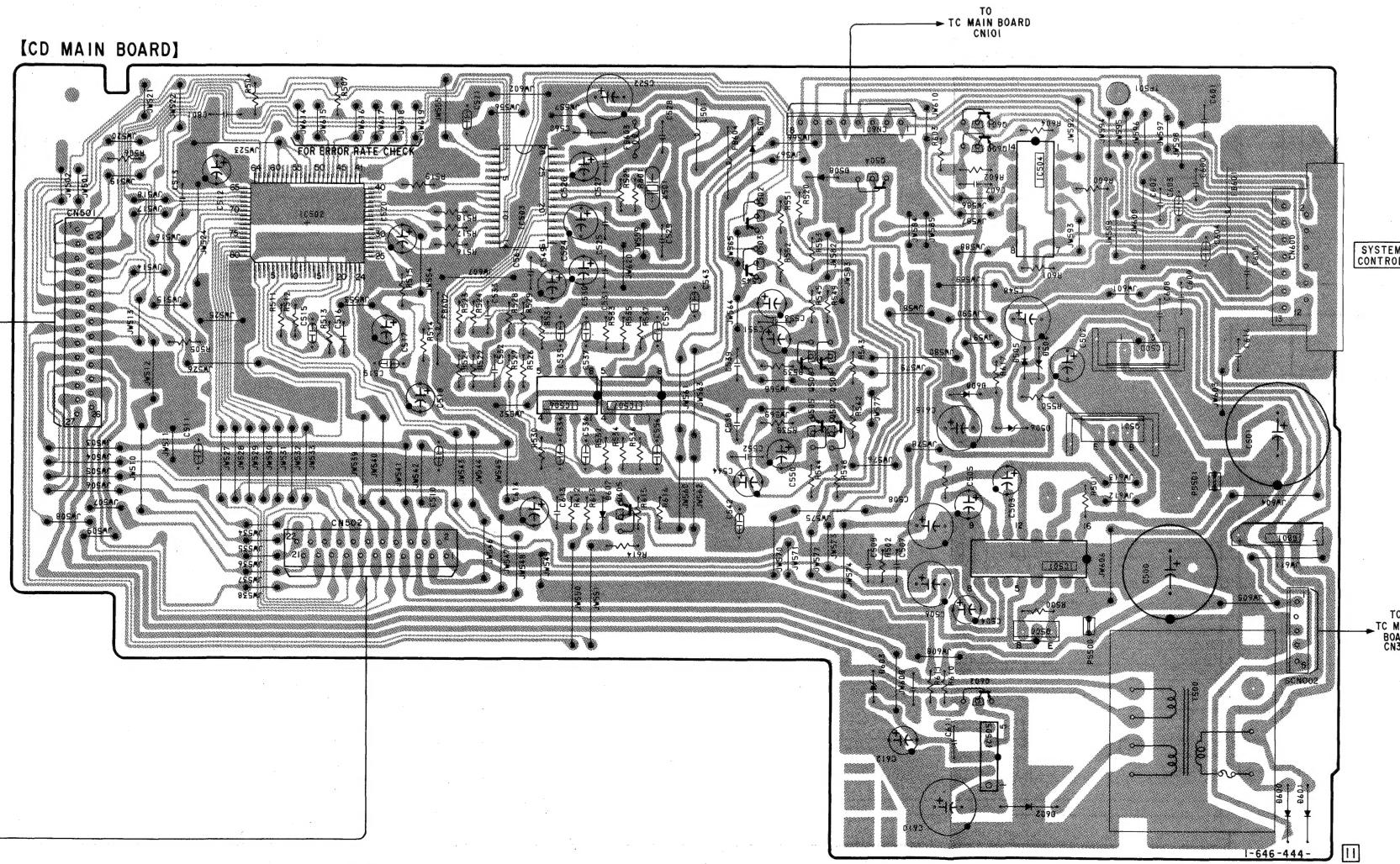
## 3-3. CD SECTION PRINTED WIRING BOARDS



NEL BOARD】



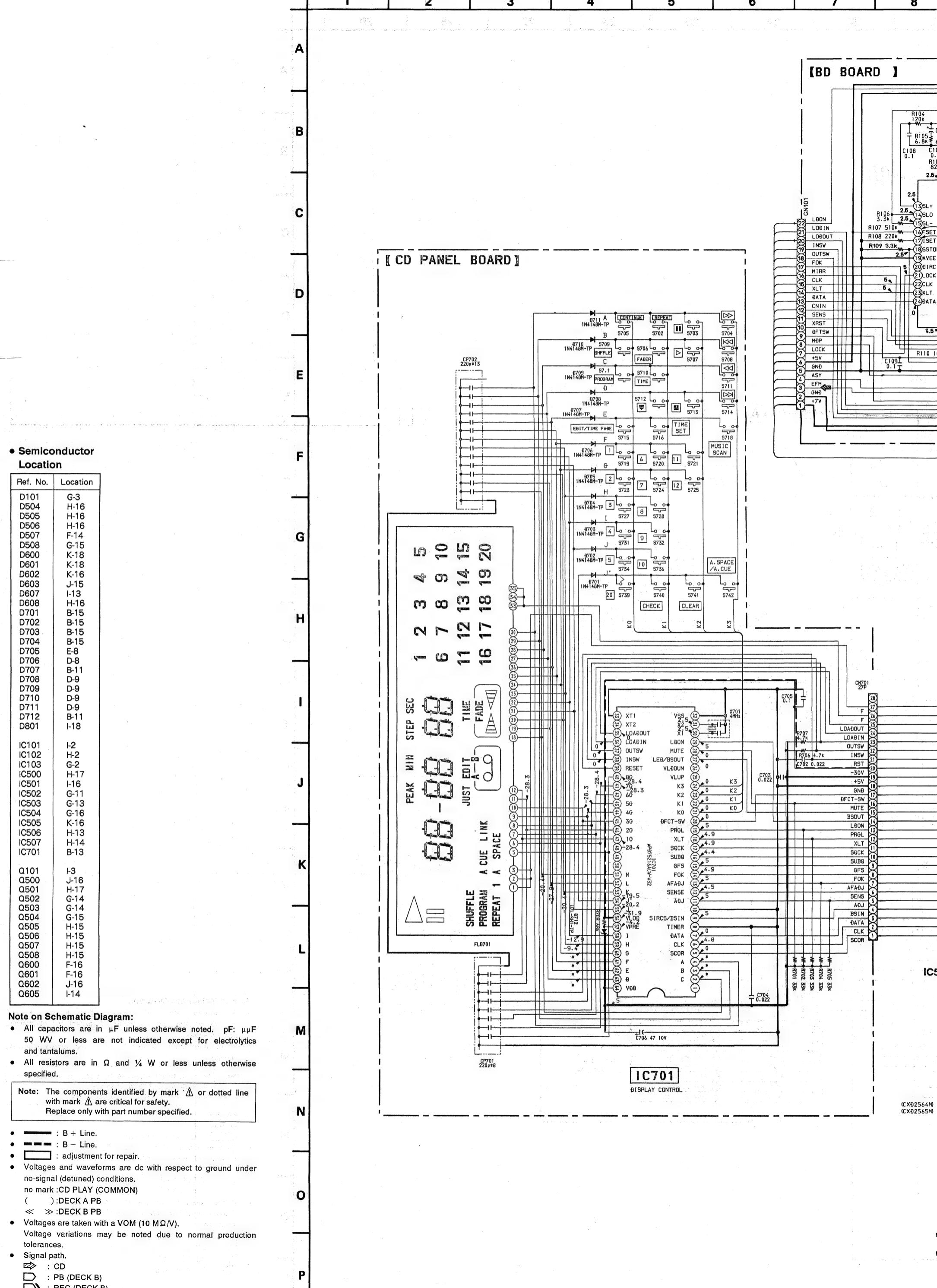
【CD MAIN BOARD】



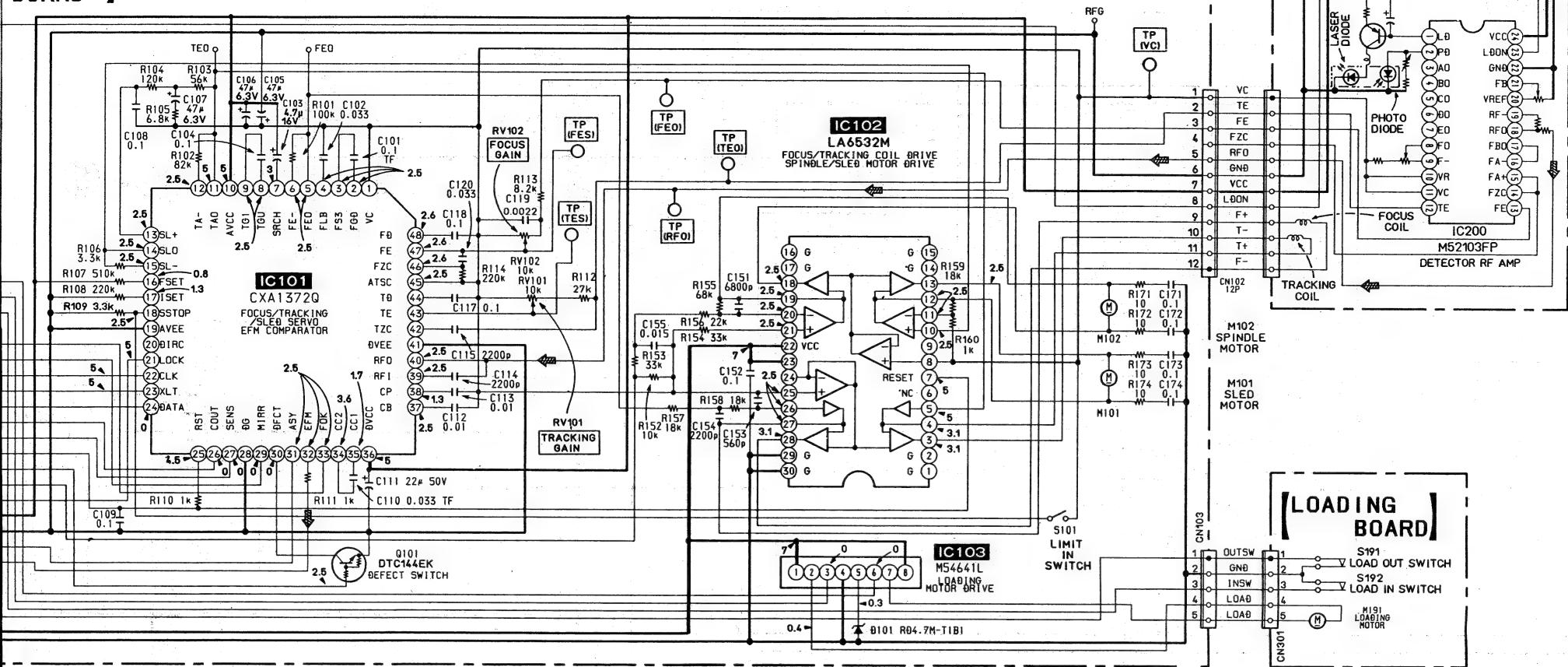
#### Note on Printed Wiring Board:

-  : parts extracted from the component side.
-  : Pattern from the side which enables seeing.
-  : Pattern of the rear side.

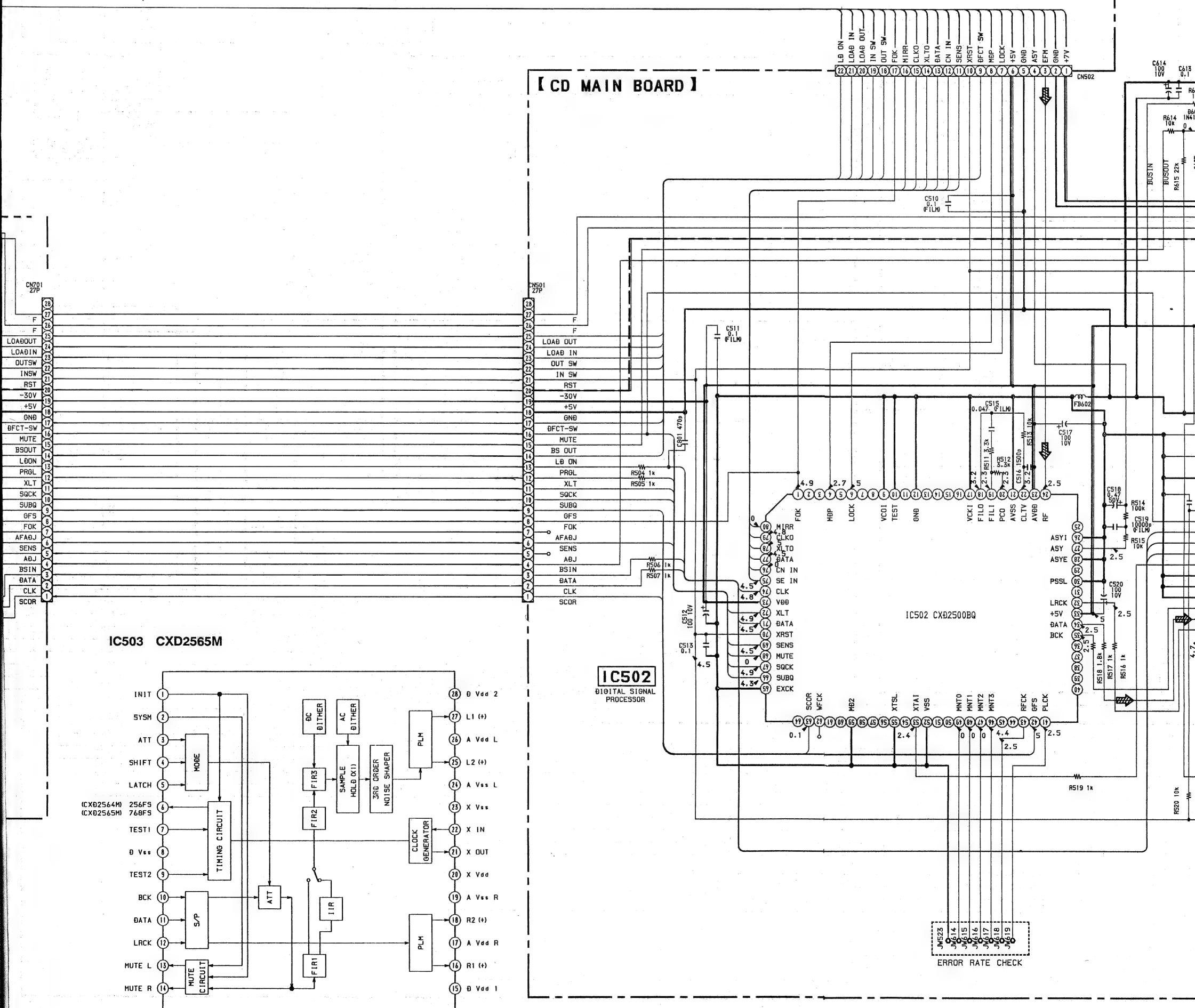
### 3-4. CD SECTION SCHEMATIC DIAGRAM



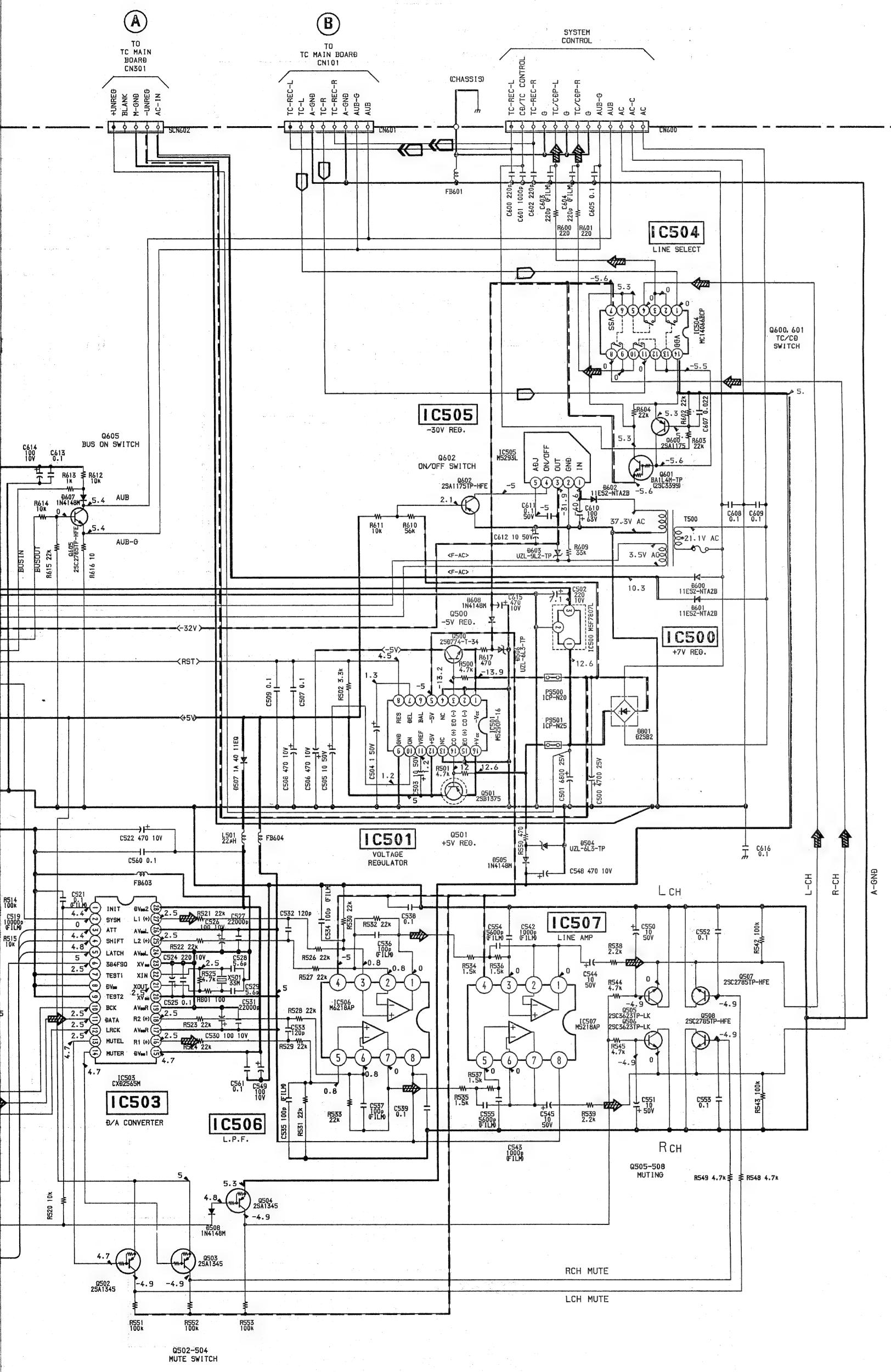
## BOARD 1



## [ CD MAIN BOARD ]



卷之三

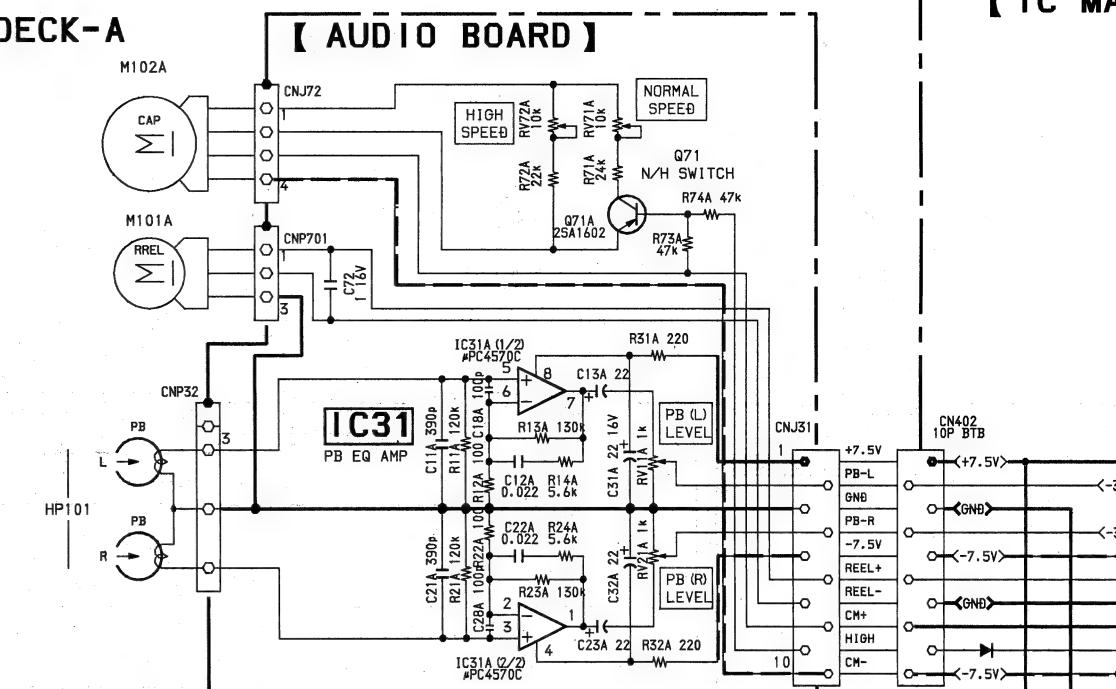


## 3-5. CASSETTE DECK SECTION SCHEMATIC DIAGRAM

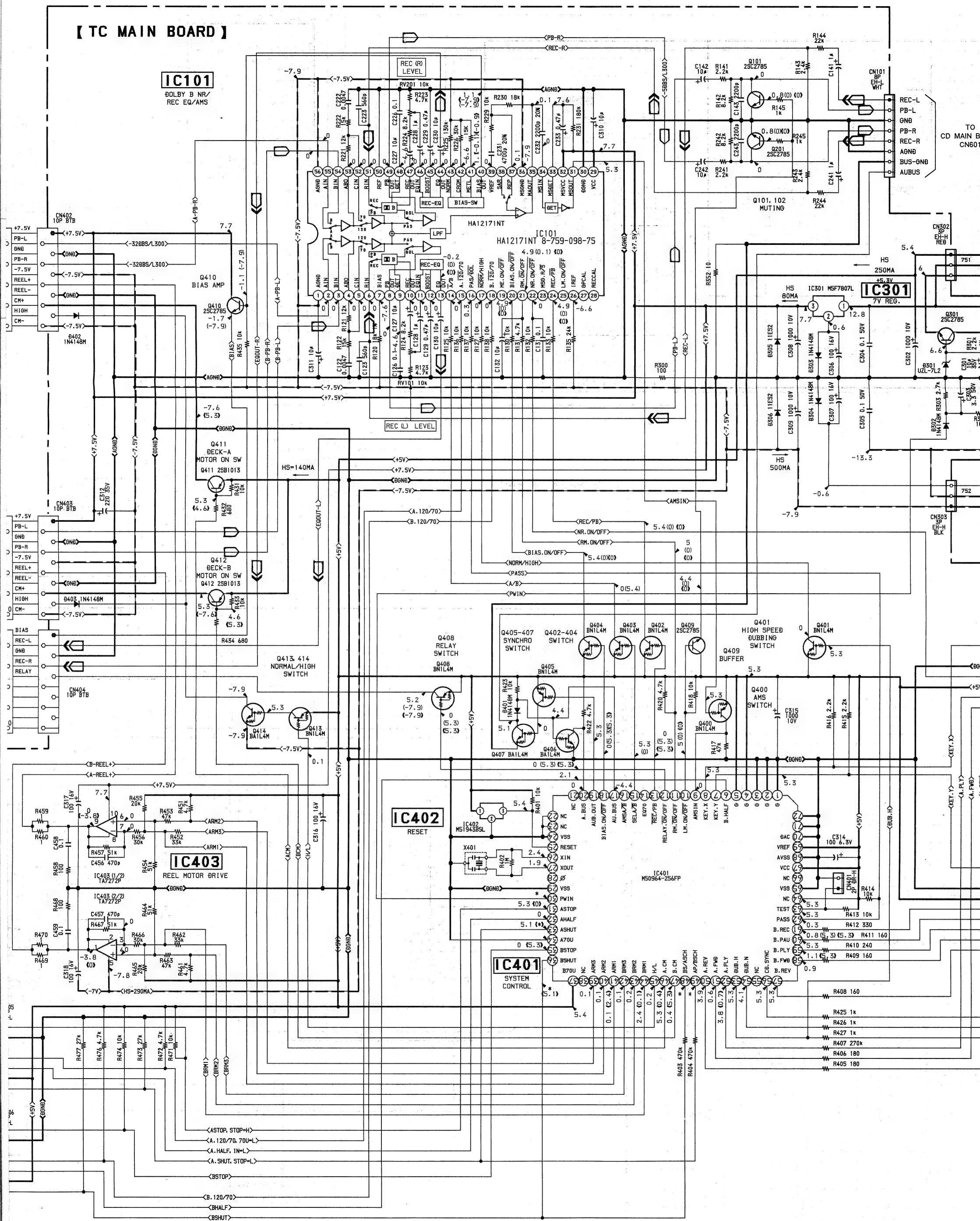
1 2 3 4 5 6 7 8 9 10 11

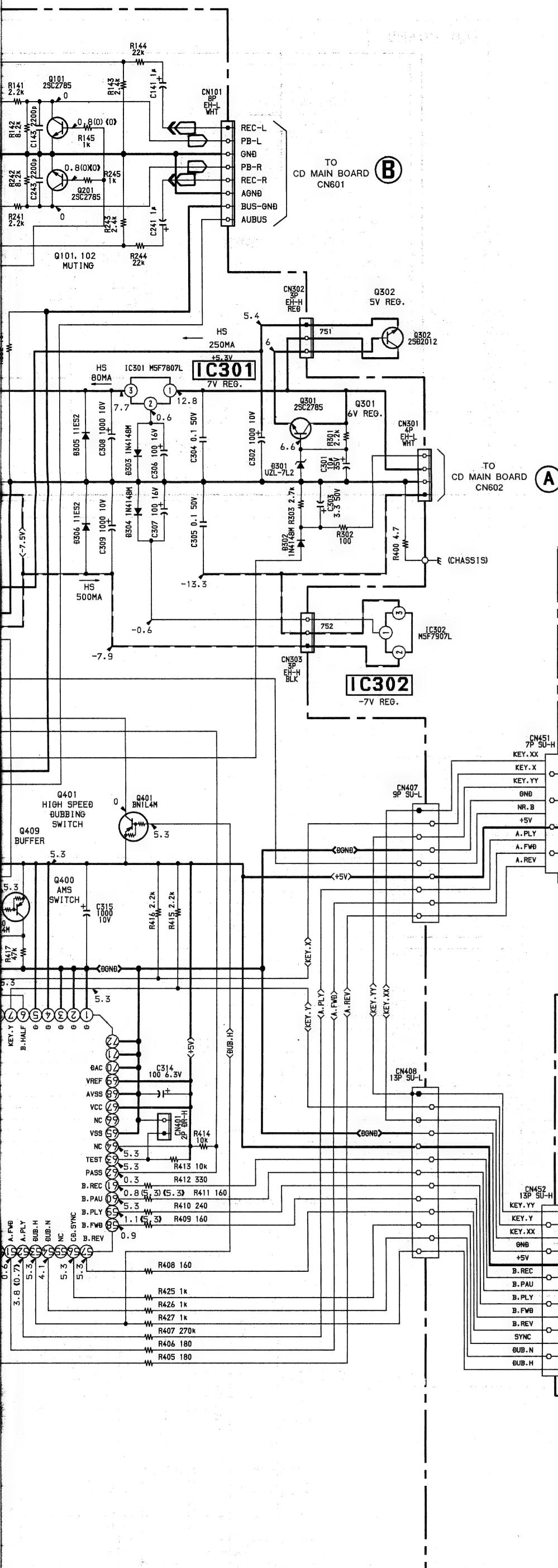
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

## DECK-A

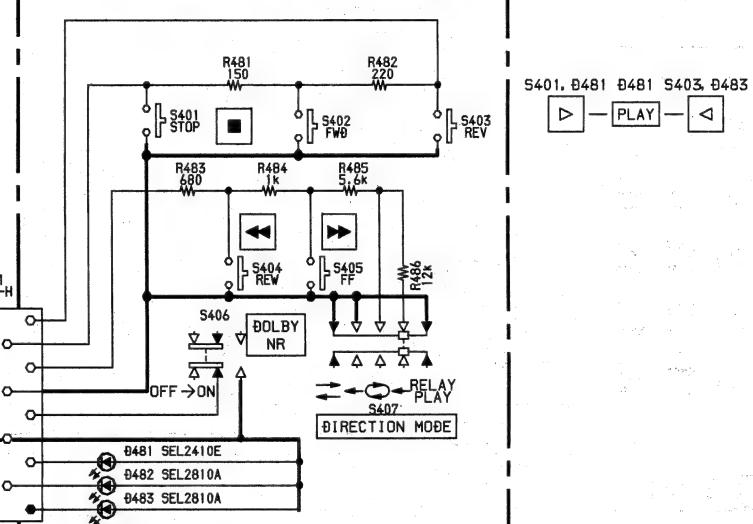


## [ TC MAIN BOARD ]

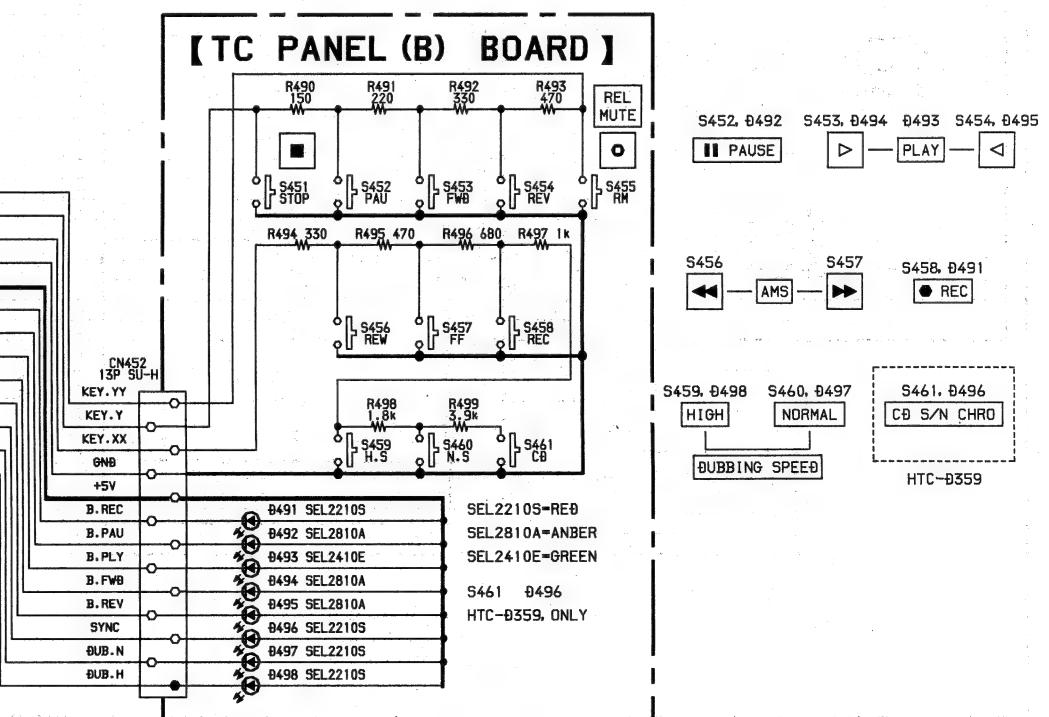




## TC PANEL (A) BOARD



**TC PANEL (B) BOARD**



### Note on S

### specific

note: T  
V  
P  
- - -  
Voltage  
no-sign  
no mat  
(  
<< >  
Voltage  
Voltage  
toleran  
Signal  
☞  
□  
□

A

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3

6

三

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1

1

16

**Note on Schematic Diagram:**

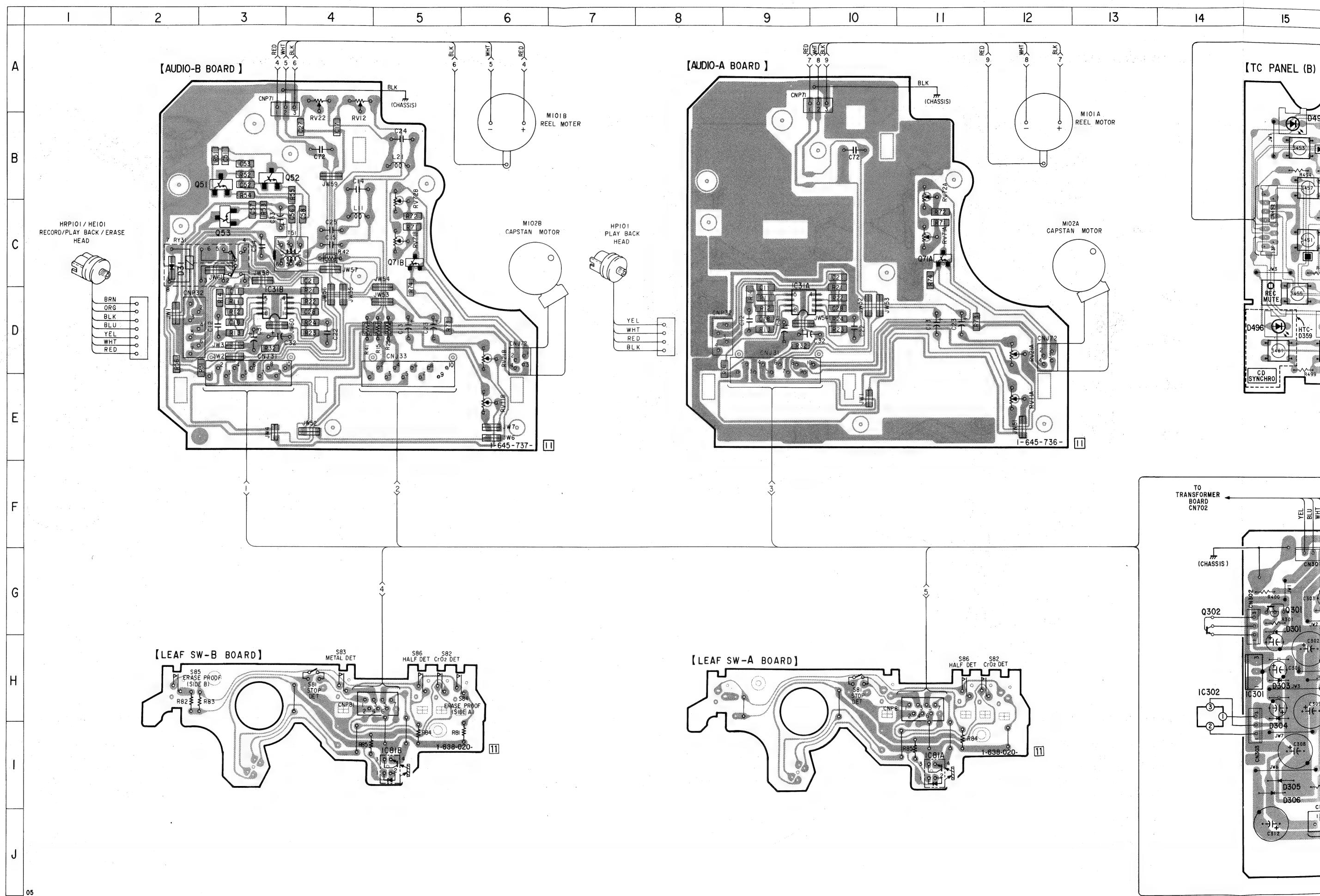
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ ;  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.

**Note:** The components identified by mark  or dotted line with mark  are critical for safety.

Replace only with part number specified.

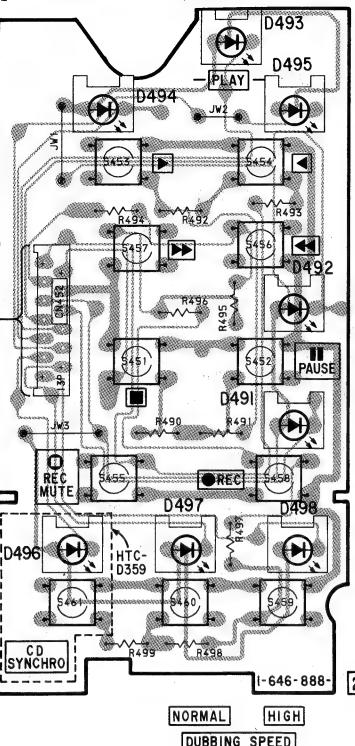
- : B + Line.
- : B - Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
no mark :REC (COMMON)
- ( ) :DECK A PB
- << >> :DECK B PB
- Voltages are taken with a VOM (10 M $\Omega$ /V).  
Voltage variations may be noted due to normal production tolerances.
- Signal path.  
⇒ : CD  
□ : PB (DECK B)  
⇒ : REC (DECK B)

- See page 13 for Semiconductor Lead Layouts.

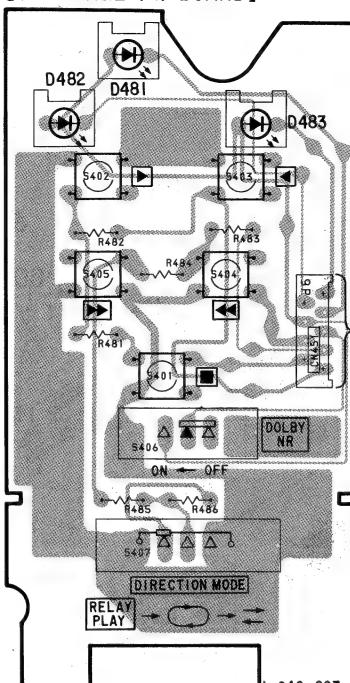


14                   15                   16                   17                   18                   19                   20                   21                   22                   23                   24

**【TC PANEL (B) BOARD】**



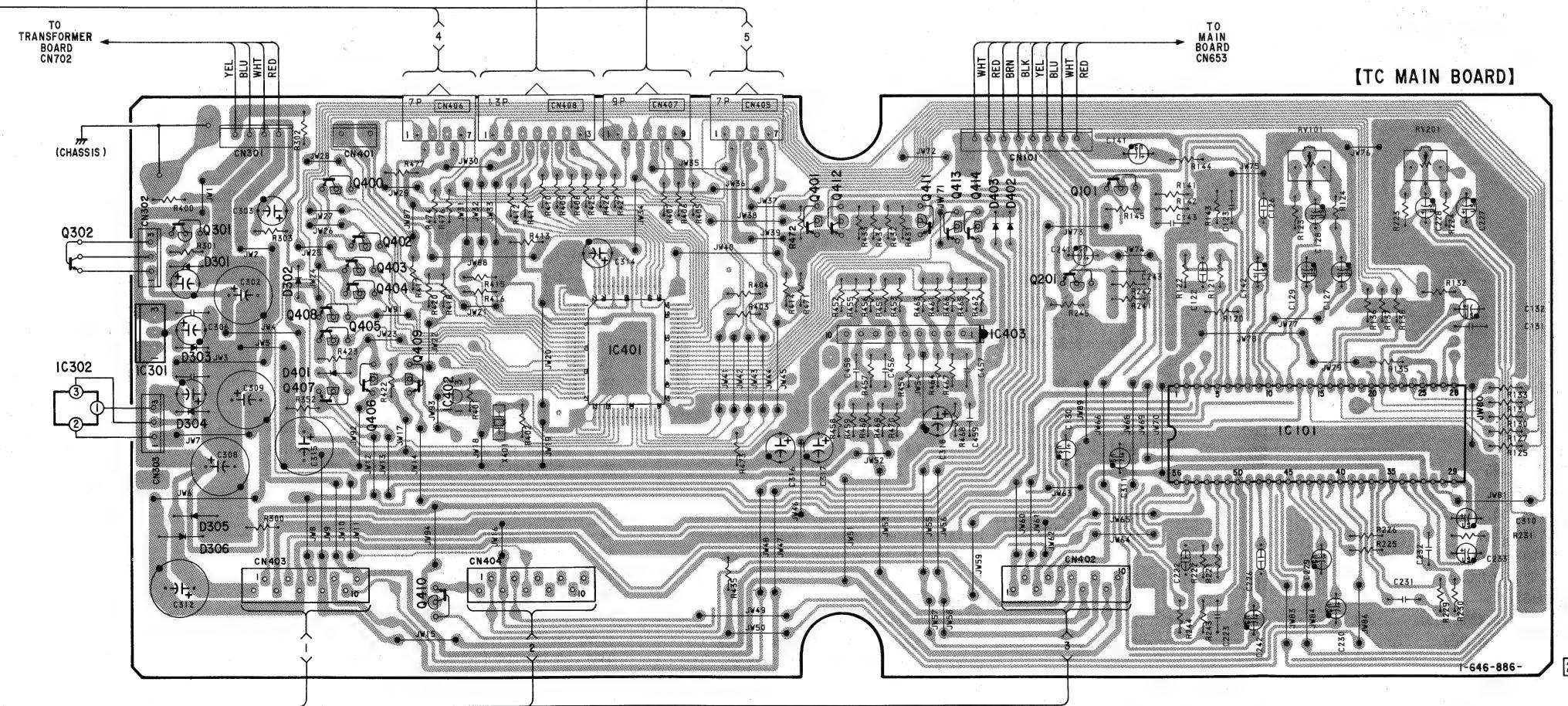
**[TC PANEL (A) BOARD]**



- Semiconductor Location

Ref. No.	Location
D31	C-2
D301	G-15
D302	H-16
D303	H-15
D304	H-15
D305	I-15
D306	I-15
D401	H-16
D402	G-21
D403	G-20
D481	A-20
D482	B-19
D483	B-21
D491	C-16
D492	C-16
D493	A-16
D494	B-15
D495	B-16
D496	D-15
D497	D-16
D498	D-16
IC31A	D-9
IC31B	D-3
IC101	I-22
IC301	H-15
IC302	H-14
IC401	H-18
IC402	H-17
IC403	H-20
Q51	B-3
Q52	B-3
Q53	C-3
Q71A	C-11
Q71B	C-5
Q101	G-21
Q201	H-21
Q301	G-15
Q302	G-14
Q400	G-16
Q401	G-19
Q402	G-16
Q403	G-16
Q404	H-16
Q405	H-16
Q406	H-16
Q407	H-16
Q408	H-16
Q409	H-16
Q410	J-17
Q411	G-20
Q412	G-19
Q413	G-20
Q414	G-20

[TC MAIN BOARD]



#### Note on Printed Wiring Board:

-  : parts extracted from the component side.

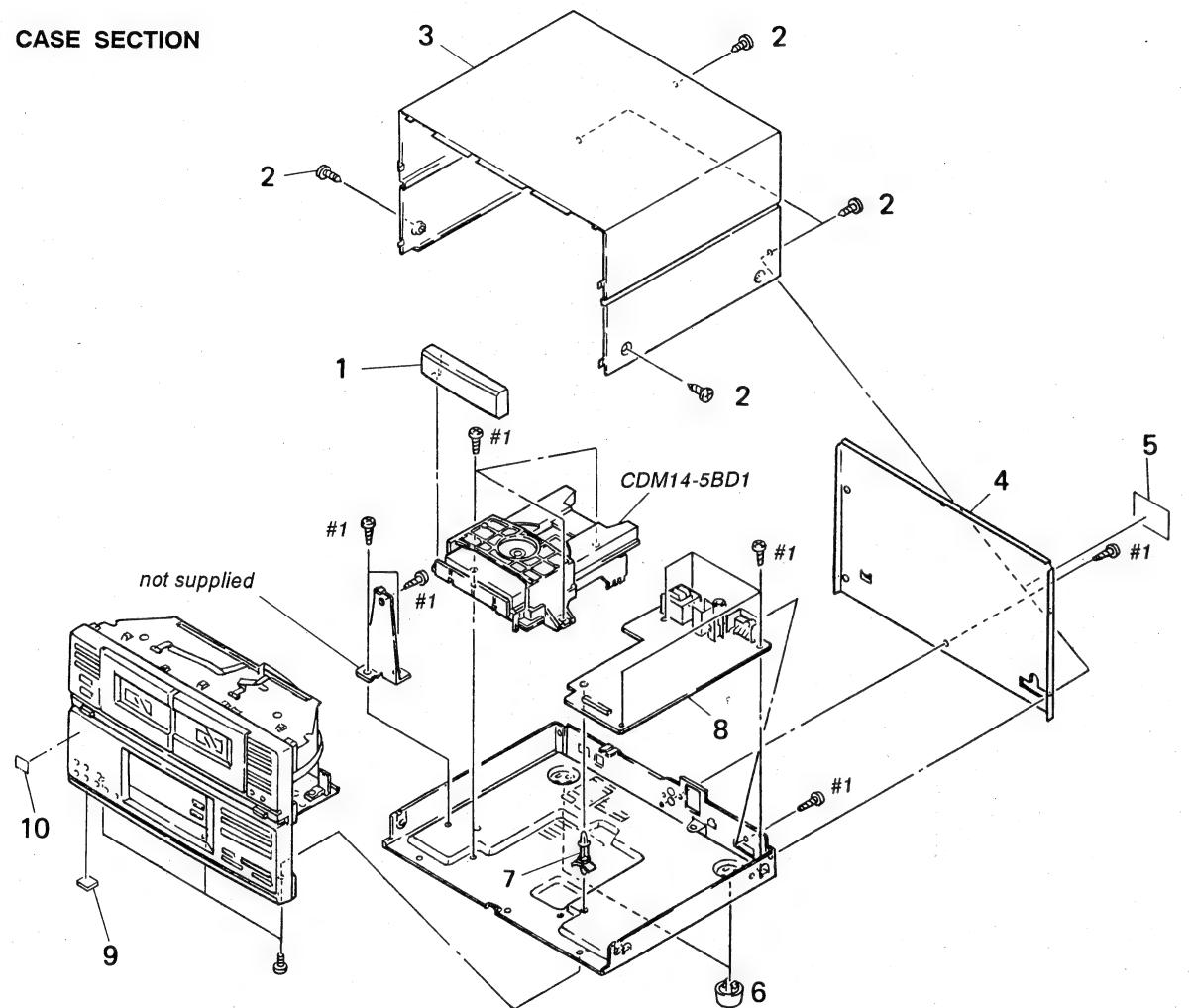
## SECTION 4 EXPLODED VIEWS

### NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example: KNOB, BALANCE (WHITE)...(RED)
- Abbreviations
 

AUS: Australian Model	IT: Italian Model
EA: Saudi Arabia Model	MY: Malaysia Model
EE: East European Model	SP: Singapore Model
G: Germany Model	

### (1) CASE SECTION

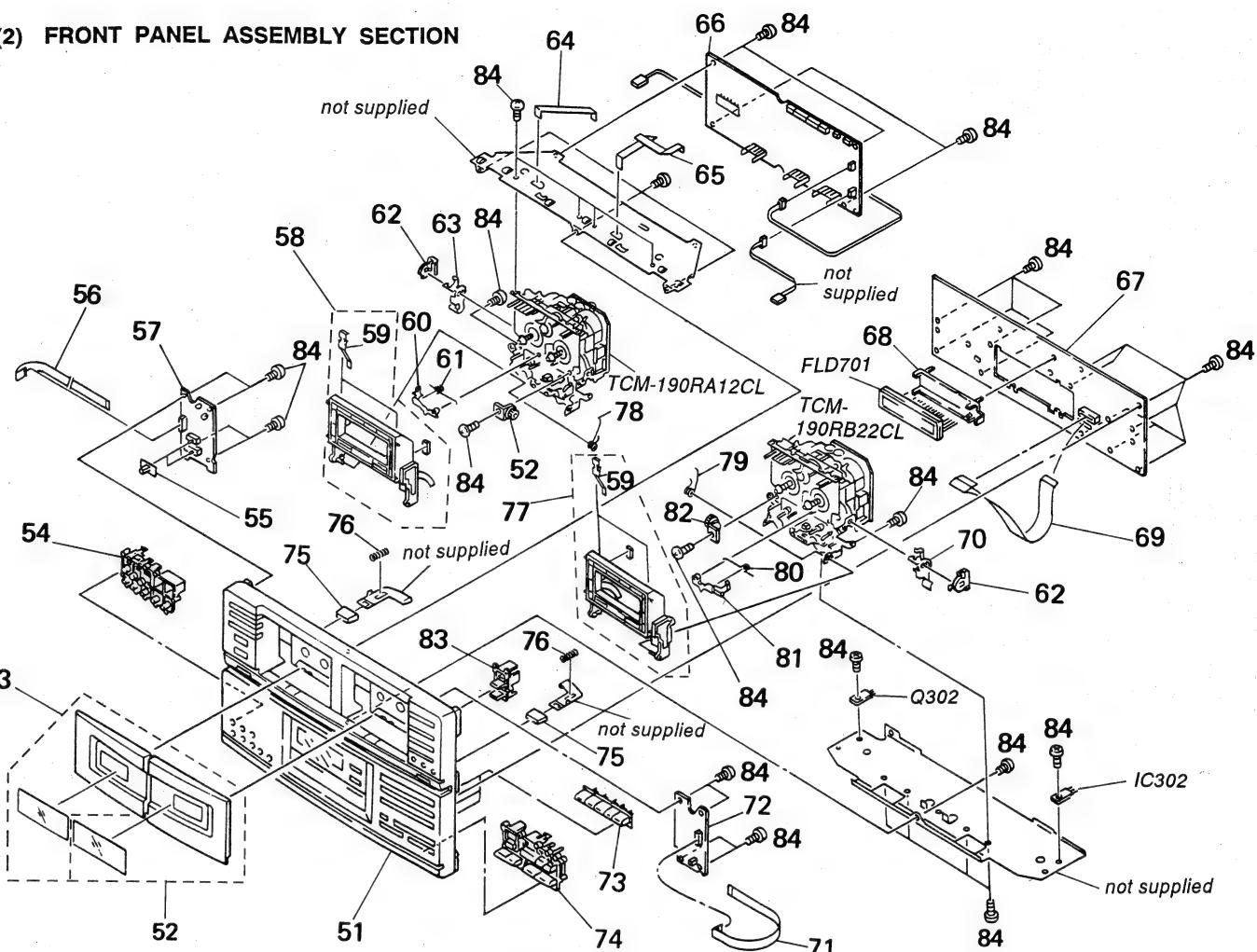


Ref. No.	Part No.	Description	Remark
1	4-955-815-01	PANEL, LOADING	
2	3-363-099-01	SCREW (CASE 3 TP2) (D209:AUS/D309:UK, AUS)	
2	3-704-366-01	SCREW (CASE) (M3X8) (D209:AEP, UK, E, G, IT, EE, EA, MY, SP/D309:AEP, E, IT, G, EA, EE, MY, SP, CIS)	
* 3	4-955-759-31	CASE	
* 4	4-955-819-01	PANEL, BACK (D209:AEP, UK, G, IT)	
* 4	4-955-819-11	PANEL, BACK (D209:E, EE, MY, SP)	
* 4	4-955-819-21	PANEL, BACK (D209:EA, AUS)	
* 4	4-955-819-31	PANEL, BACK (D309:AEP, UK, G, IT)	
* 4	4-955-819-41	PANEL, BACK (D309:E, EE, MY, SP, CIS)	
* 4	4-955-819-51	PANEL, BACK (D309:EA, AUS)	

-31-

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

### (2) FRONT PANEL ASSEMBLY SECTION



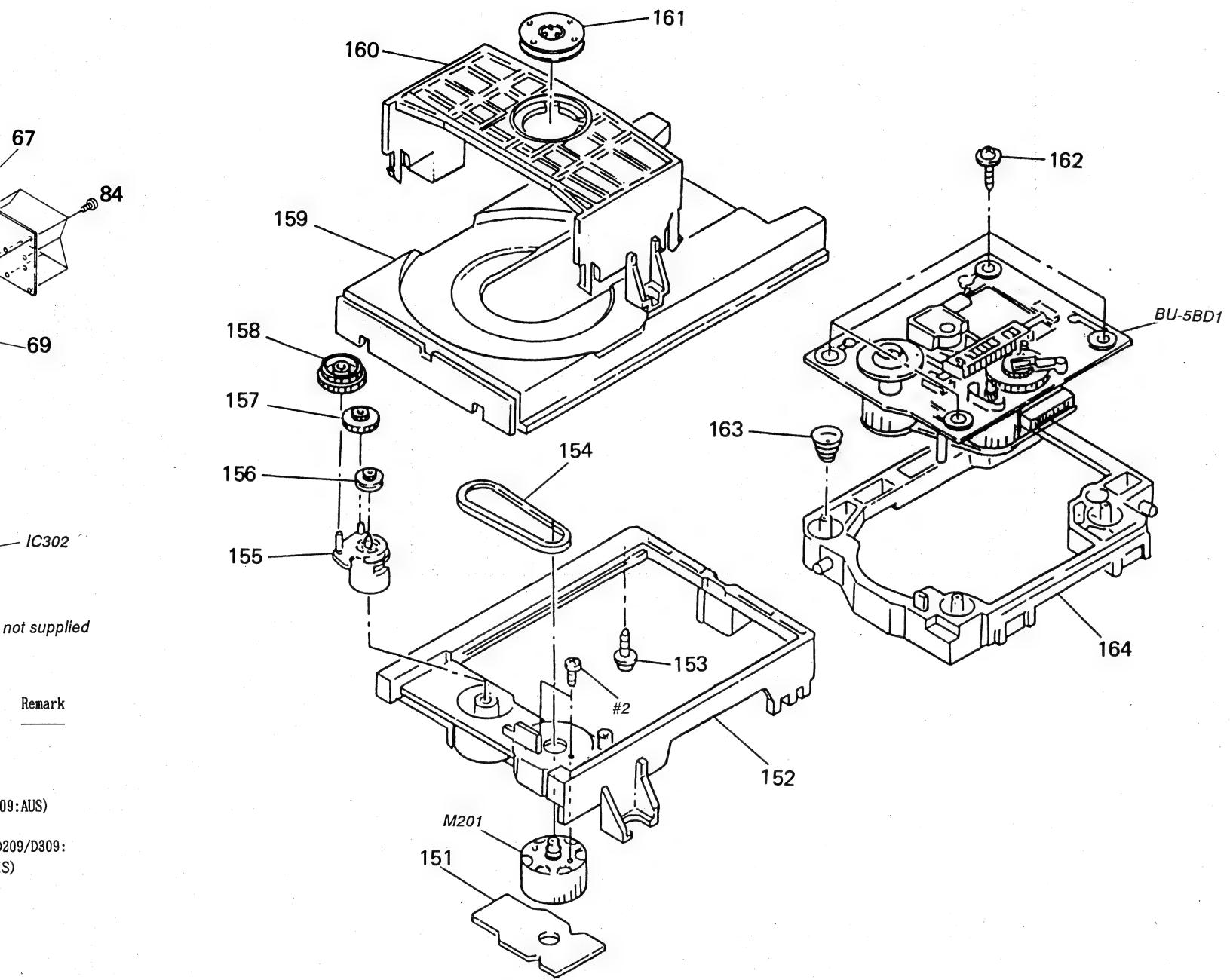
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-4943-189-1	PANEL ASSY, FRONT (D209)		* 68	4-955-816-01	HOLDER (IF), FL TUBE	
51	X-4943-470-1	PANEL ASSY, FRONT (D309)		69	1-690-729-11	WIRE, FLAT TYPE (27 CORE)	
52	X-4943-197-1	LID (B) ASSY, CASSETTE		* 70	3-354-954-01	LEVER (LOCK LEVER R)	
53	X-4943-196-1	LID (A) ASSY, CASSETTE		71	1-690-589-31	WIRE, FLAT TYPE (13 CORE) (D309:AUS)	
54	4-955-812-01	BUTTON (CD-A)		71	1-751-210-11	WIRE (FLAT TYPE) (13 CORE) (D209/D309: AEP, UK, E, G, IT, EE, EA, MY, SP, CIS)	
55	4-948-273-01	KNOB, SLIDE		* 72	1-646-888-11	TC PANEL (B) BOARD	
56	1-751-209-11	WIRE (FLAT TYPE) (9 CORE)		73	4-955-741-01	BUTTON (PR)	
* 57	1-646-887-11	TC PANEL (A) BOARD		74	4-955-814-01	BUTTON (CD-C)	
58	A-4325-163-A	HOLDER (L) ASSY, CASSETTE		75	4-935-355-41	BUTTON (EJECT)	
59	3-308-823-11	SPRING		76	3-500-131-00	SPRING, COMPRESSION	
60	3-354-955-01	LEVER (EJ SAFETY LEVER L)		77	A-4325-164-A	HOLDER (R) ASSY, CASSETTE	
61	3-354-961-01	SPRING (EJ SAFETY SPRING L)		78	3-354-959-01	SPRING (LOADING L), TORSION	
62	3-354-957-01	JOINT (LOCK LEVER)		79	3-354-960-01	SPRING (LOADING R), TORSION	
* 63	3-354-953-01	LEVER (LOCK LEVER L)		80	3-354-962-01	SPRING (EJ SAFETY SPRING R)	
64	1-590-574-11	WIRE, FLAT TYPE (7 CORE)		81	3-354-956-01	LEVER (EJ SAFETY LEVER R)	
65	1-590-485-11	WIRE, FLAT TYPE (7 CORE)		82	3-354-963-01	DAMPER	
* 66	A-4356-643-A	TC MAIN BOARD, COMPLETE (D209:AEP, E, IT, EE, EA, AUS, MY, SP/D309:AEP, E, IT, EA, EE, MY, SP, CIS, AUS)		83	4-955-813-01	BUTTON (CD-B)	
* 66	A-4356-654-A	TC MAIN BOARD, COMPLETE (D209:UK, G/D309:UK, G)		84	4-951-620-01	SCREW (2.6X8), +BVTP	
* 67	A-4356-653-A	CD PANEL BOARD, COMPLETE (D209:AEP, E, IT, EE, EA, AUS, MY, SP/D309:AEP, E, IT, EA, EE, MY, SP, CIS, AUS)		FLD701	1-519-681-21	INDICATOR TUBE, FLUORESCENT	
* 67	A-4356-662-A	CD PANEL BOARD, COMPLETE (D209:UK, G/D309:UK, G)		IC302	8-759-604-95	IC M5F79M07	
				Q302	8-729-209-15	TRANSISTOR 2SD2012	

-32-

### (3) CD M

159  
158  
157  
156  
155  
Ref. No. \* 151  
\* 152  
\* 153  
\* 154  
\* 155  
\* 156  
\* 157  
\* 158

(3) CD MECHANISM SECTION (CDM14-5BD1)



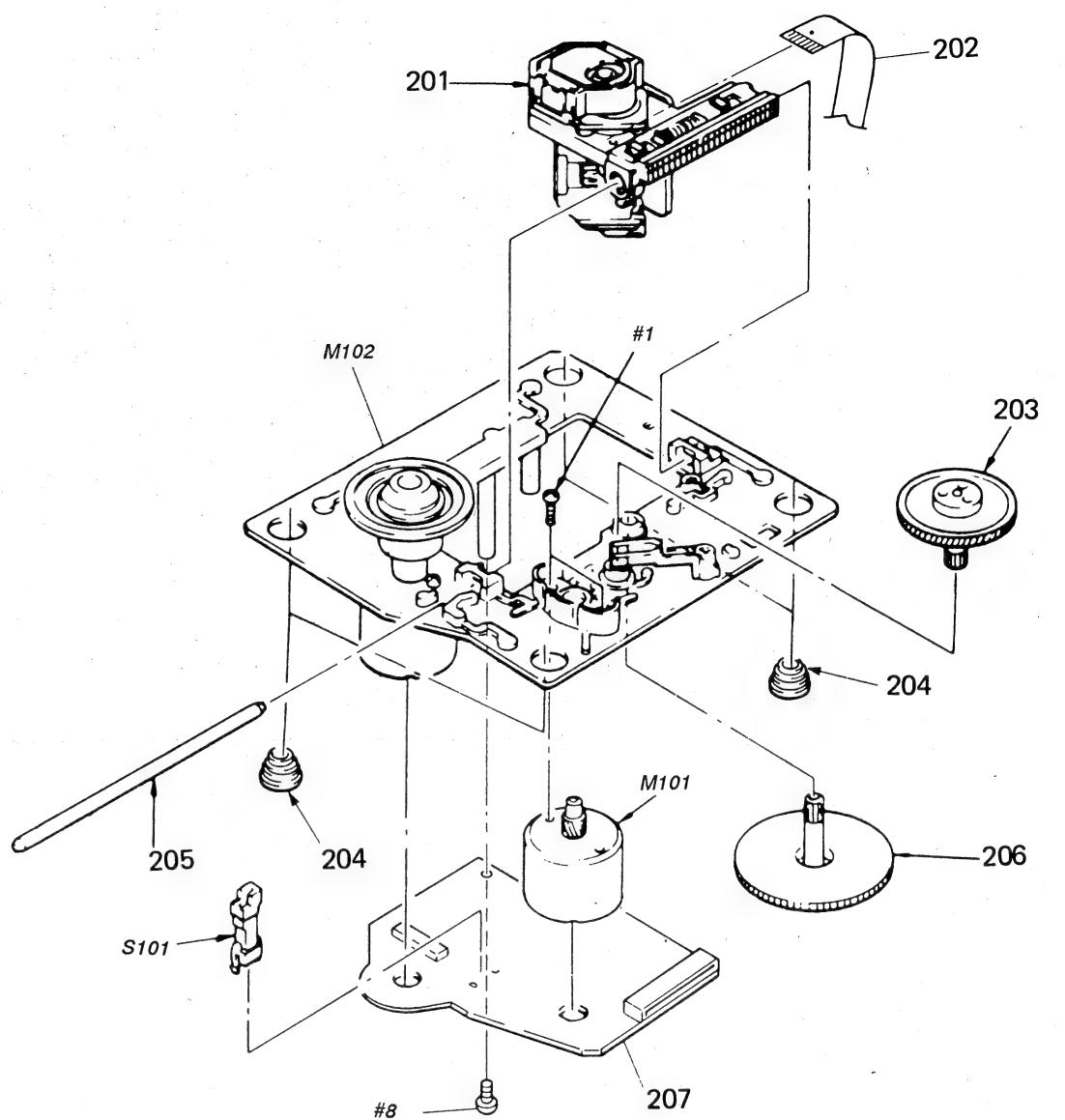
Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

* 151	1-632-202-11	LOADING BOARD	
152	4-933-111-01	CHASSIS (MD)	
* 153	4-917-583-21	BRACKET, YOKE	
154	4-927-649-01	BELT	
155	4-933-109-01	CAM	
156	4-927-651-01	PULLEY (S)	
157	4-927-628-01	GEAR (C)	
158	4-933-107-01	GEAR (PL)	

Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

159	4-933-112-01	TABLE, DISK	
160	4-933-110-01	HOLDER (MG)	
* 161	1-452-538-11	MAGNET	
162	4-933-134-01	SCREW (+PTPWH M2. 6X6)	
163	4-917-541-01	SPRING (B)	
164	4-933-129-01	HOLDER (BU)	
M201	A-4604-363-A	MOTOR (L) ASSY	

(4) OPTICAL PICK-UP BLOCK ASSEMBLY (BU-5BD1)



Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

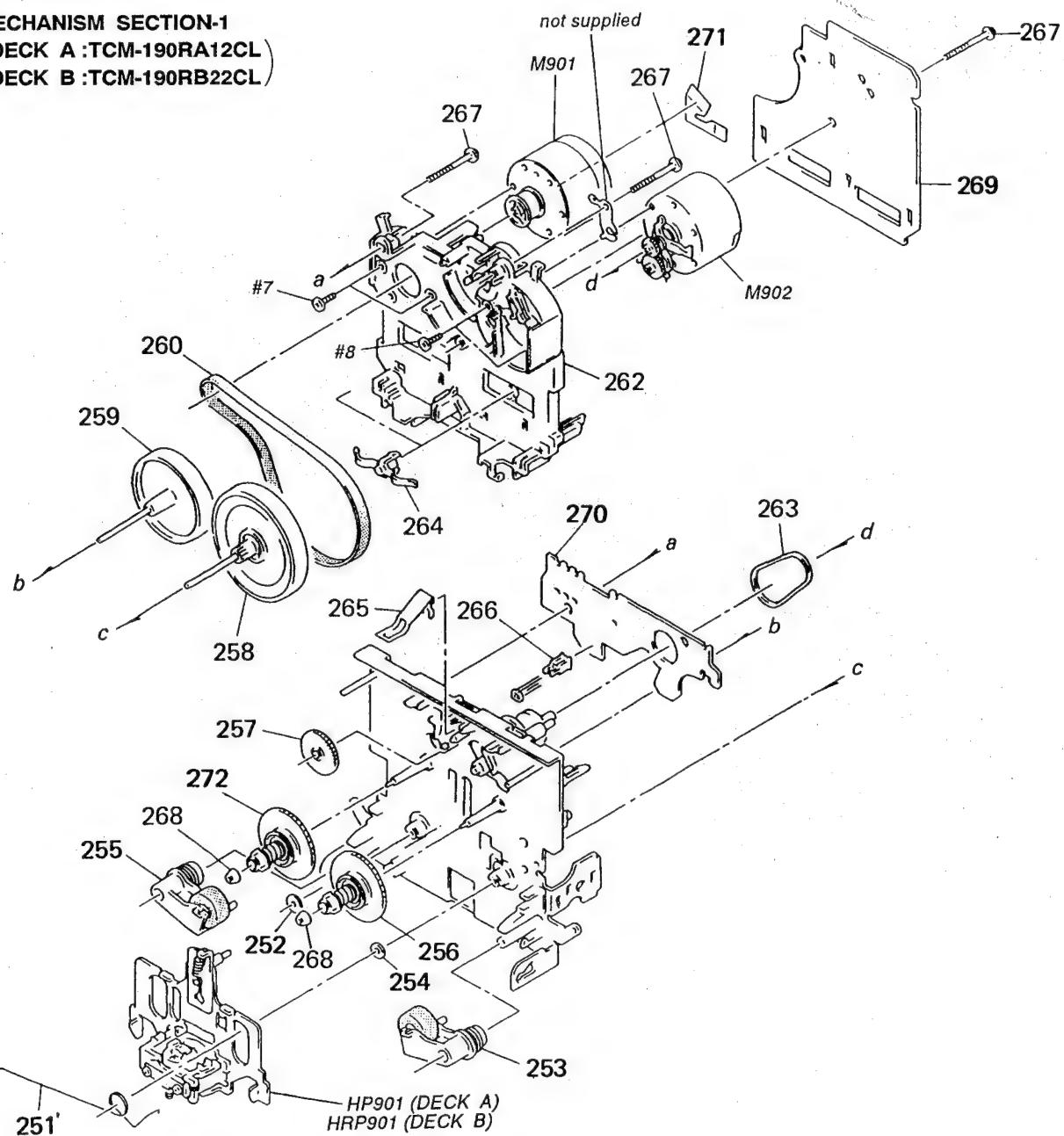
△201	8-848-144-11	DEVICE, OPTICAL KSS-240A	
202	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
203	4-917-567-01	GEAR (M)	
204	4-933-126-01	INSULATOR (A)	
205	4-917-565-01	SHAFT, SLED	

Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

206	4-917-564-01	GEAR (P), FLATNESS	
* 207	A-4617-371-A	BD BOARD, COMPLETE	
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-3	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	

Note: The components identified by mark **△** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

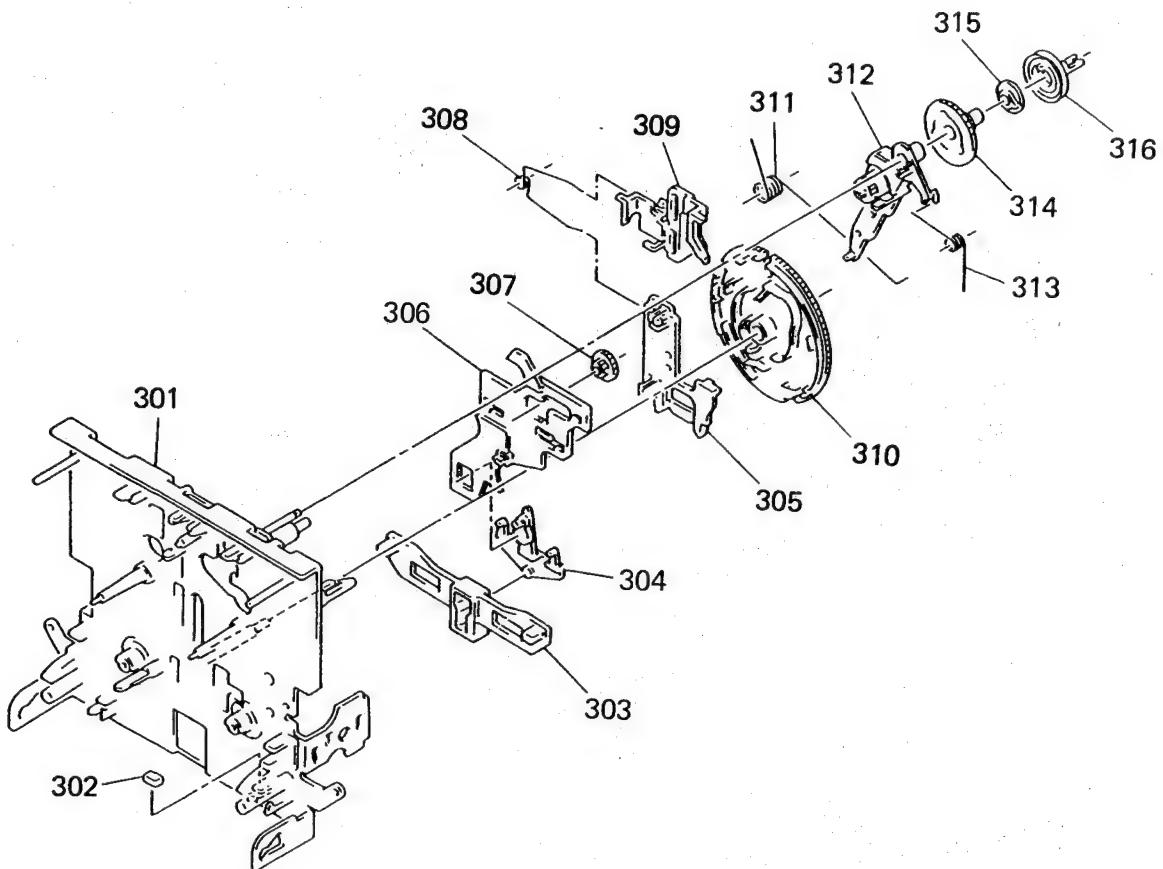
(5) MECHANISM SECTION-1  
 (DECK A :TCM-190RA12CL)  
 (DECK B :TCM-190RB22CL)



Ref. No.	Part No.	Description	Remark
251	3-359-455-01	SPRING, TORSION	
252	3-356-714-01	WASHER	
253	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY	
254	3-356-713-01	WASHER	
255	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY	
256	X-3359-404-1	TABLE ASSY, REEL	
257	3-359-424-01	GEAR (REV GEAR)	
258	X-3359-406-1	FLYWHEEL (FWD) ASSY	
259	X-3359-410-1	FLYWHEEL (REV) ASSY	
260	3-359-417-01	BELT (FLAT), CAPSTAN	
* 262	3-359-436-01	BASE (THRUST RETAINER), FITTING	
263	3-359-466-01	BELT (FR), SQUARE	
264	3-575-321-00	RETAINER, THRUST, CAPSTAN	

Ref. No.	Part No.	Description	Remark
265	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
266	3-343-419-01	HOLDER (S SENSOR A)	
267	3-359-414-01	SCREW (+PTPWH 2X23)	
268	3-362-308-01	CAP (REEL)	
* 269	A-2006-609-A	AUDIO BOARD, COMPLETE (DECK A)	
* 269	A-2006-610-A	AUDIO BOARD, COMPLETE (DECK B)	
* 270	1-638-020-11	LEAF SW BOARD	
271	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
272	X-3362-078-1	TABLE ASSY (B), REEL	
HP901	A-2003-838-A	DECK ASSY, HEAD (DECK A)	
HRPE901A	2004-190-A	DECK ASSY, HEAD (DECK B)	
M901	X-3359-417-1	MOTOR ASSY (CAPSTAN)	
M902	X-3363-501-1	MOTOR ASSY (REEL)	

(6) MECHANISM SECTION-2  
 (DECK A :TCM-190RA12CL)  
 (DECK B :TCM-190RB22CL)



Ref. No.	Part No.	Description	Remark
301	X-3359-415-1	CHASSIS ASSY, MECHANICAL	
302	3-359-469-01	SPACER	
* 303	3-359-425-01	SLIDER (REVERSE SLIDER)	
304	3-359-426-01	LEVER (REVERSE LEVER)	
* 305	3-359-427-01	SLIDER (LEVERSE SLIDER)	
* 306	3-359-415-01	SLIDER (TRIGGER SLIDER)	
307	3-359-448-01	GEAR (TRIGGER)	
308	3-359-454-01	SPRING, TORSION	

Ref. No.	Part No.	Description	Remark
309	3-359-429-01	SLIDER (BRAKE PLATE)	
310	3-359-420-01	GEAR (CAM GEAR)	
311	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
312	X-3359-405-1	LEVER (FR ARM) ASSY	
313	3-359-453-01	SPRING (FR ARM), TORSION	
314	3-359-419-01	GEAR (FR GEAR)	
315	3-359-421-01	CLUTCH (REEL DISK)	
316	3-359-418-01	PULLEY (FR PULLEY)	

## SECTION 5

### ELECTRICAL PARTS LIST

**AUDIO-A**

**AUDIO-B**

**NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable

● Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● **SEMICONDUCTORS**

In each case, u:μ, for example:

uA...: μA. uPA...: μPA.  
uPB...: μPB. uPC...: μPC. uPD...: μPD.

● **CAPACITORS**

uF: μF

When indicating parts by reference number, please include the board.

● **COILS**

uH: μH

● **Abbreviations**

AUS: Australian Model

IT: Italian Model

EA: Saudi Arabia Model

MY: Malaysia Model

EE: East European Model

SP: Singapore Model

G: Germany Model

The components identified by mark  $\Delta$  or dotted line with mark.  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark						
* A-2006-623-A AUDIO-A BOARD, COMPLETE																	
*****																	
< CAPACITOR >																	
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	R11	1-216-099-00	METAL CHIP	120K	5%	1/10W						
C12	1-136-157-00	FILM	0.022uF	5%	50V	R12	1-216-025-00	METAL CHIP	100	5%	1/10W						
C13	1-124-234-00	ELECT	22uF	20%	16V	R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W						
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	R14	1-216-067-00	METAL CHIP	5.6K	5%	1/10W						
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	R21	1-216-099-00	METAL CHIP	120K	5%	1/10W						
C22	1-136-157-00	FILM	0.022uF	5%	50V	R22	1-216-025-00	METAL CHIP	100	5%	1/10W						
C23	1-124-234-00	ELECT	22uF	20%	16V	R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W						
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	R24	1-216-067-00	METAL CHIP	5.6K	5%	1/10W						
C31	1-124-234-00	ELECT	22uF	20%	16V	R31	1-216-033-00	METAL CHIP	220	5%	1/10W						
C32	1-124-234-00	ELECT	22uF	20%	16V	R32	1-216-033-00	METAL CHIP	220	5%	1/10W						
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V	R71	1-216-082-00	METAL GLAZE	24K	5%	1/10W						
< JACK >																	
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD				R72	1-216-081-00	METAL CHIP	22K	5%	1/10W						
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P				R73	1-216-089-00	METAL CHIP	47K	5%	1/10W						
< CONNECTOR >																	
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD)	4P			R74	1-216-089-00	METAL CHIP	47K	5%	1/10W						
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE)	3P			< VARIABLE RESISTOR >											
< IC >																	
IC31	8-759-106-02	IC	uPC4570G2			RV11	1-238-012-11	RES, ADJ, CARBON	1K								
< JUMPER RESISTOR >																	
JW1	1-216-295-00	METAL CHIP	0	5%	1/10W	RV21	1-238-012-11	RES, ADJ, CARBON	1K								
JW51	1-216-296-00	METAL CHIP	0	5%	1/8W	RV71	1-238-016-11	RES, ADJ, CARBON	10K								
JW52	1-216-296-00	METAL CHIP	0	5%	1/8W	RV72	1-238-016-11	RES, ADJ, CARBON	10K								
JW53	1-216-296-00	METAL CHIP	0	5%	1/8W	*****											
JW54	1-216-296-00	METAL CHIP	0	5%	1/8W	* A-2006-624-A AUDIO-B BOARD, COMPLETE											
< CAPACITOR >																	
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V						
C12	1-136-157-00	FILM	0.022uF	5%	50V	C12	1-136-157-00	FILM	0.022uF	5%	50V						
C13	1-124-234-00	ELECT	22uF	20%	16V	C14	1-136-273-91	FILM	75PF	5%	630V						
C14	1-136-273-91	FILM	75PF	5%		C15	1-164-080-11	CERAMIC	390PF	10%	50V						

**AUDIO-B**

Ref. No.	Part No.	Description	Remark		
C17	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-234-00	ELECT	22uF	20%	16V
C24	1-136-273-91	FILM	75PF	5%	630V
C25	1-164-080-11	CERAMIC	390PF	10%	50V
C27	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C31	1-124-234-00	ELECT	22uF	20%	16V
C32	1-124-234-00	ELECT	22uF	20%	16V
C33	1-124-234-00	ELECT	22uF	20%	16V
C51	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C52	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C53	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V
C54	1-136-559-11	FILM	0.0047uF	5%	630V
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C57	1-164-346-11	CERAMIC CHIP	1uF		16V
C58	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V

## &lt; JACK &gt;

- \* CNJ31 1-580-782-11 CONNECTOR, BOARD TO BOARD
- \* CNJ33 1-580-782-11 CONNECTOR, BOARD TO BOARD
- \* CNJ72 1-580-411-11 SOCKET, CONNECTOR 4P

## &lt; CONNECTOR &gt;

- \* CNP32 1-580-781-11 PIN, CONNECTOR (PC BOARD) 7P
- \* CNP71 1-564-719-11 PIN, CONNECTOR (SMALL TYPE) 3P

## &lt; DIODE &gt;

D31 8-719-404-46 DIODE MA110

## &lt; IC &gt;

IC31 8-759-106-02 IC uPC4570G2

## &lt; JUMPER RESISTOR &gt;

JW1	1-216-296-00	METAL CHIP	0	5%	1/8W
JW2	1-216-295-00	METAL CHIP	0	5%	1/10W
JW3	1-216-295-00	METAL CHIP	0	5%	1/10W
JW4	1-216-295-00	METAL CHIP	0	5%	1/10W
JW6	1-216-295-00	METAL CHIP	0	5%	1/10W
JW7	1-216-295-00	METAL CHIP	0	5%	1/10W
JW52	1-216-296-00	METAL CHIP	0	5%	1/8W
JW53	1-216-296-00	METAL CHIP	0	5%	1/8W
JW54	1-216-296-00	METAL CHIP	0	5%	1/8W
JW55	1-216-296-00	METAL CHIP	0	5%	1/8W

Ref. No.	Part No.	Description	Remark		
JW56	1-216-296-00	METAL CHIP	0	5%	1/8W
JW57	1-216-296-00	METAL CHIP	0	5%	1/8W
JW58	1-216-296-00	METAL CHIP	0	5%	1/8W
JW59	1-216-296-00	METAL CHIP	0	5%	1/8W
JW60	1-216-296-00	METAL CHIP	0	5%	1/8W

## &lt; COIL &gt;

L11 1-410-780-11 INDUCTOR 27mH

L21 1-410-780-11 INDUCTOR 27mH

## &lt; TRANSISTOR &gt;

Q51 8-729-111-29 TRANSISTOR 2SD1616A-K

Q52 8-729-111-29 TRANSISTOR 2SD1616A-K

Q53 8-729-111-29 TRANSISTOR 2SD1616A-K

Q71 8-729-216-22 TRANSISTOR 2SA1162-G

## &lt; RESISTOR &gt;

R11 1-216-099-00 METAL CHIP 120K 5% 1/10W

R12 1-216-025-00 METAL CHIP 100 5% 1/10W

R13 1-216-100-00 METAL GLAZE 130K 5% 1/10W

R14 1-216-067-00 METAL CHIP 5.6K 5% 1/10W

R15 1-249-430-11 CARBON 12K 5% 1/4W

R21 1-216-099-00 METAL CHIP 120K 5% 1/10W

R22 1-216-025-00 METAL CHIP 100 5% 1/10W

R23 1-216-100-00 METAL GLAZE 130K 5% 1/10W

R24 1-216-067-00 METAL CHIP 5.6K 5% 1/10W

R25 1-249-430-11 CARBON 12K 5% 1/4W

R31 1-216-033-00 METAL CHIP 220 5% 1/10W

R32 1-216-033-00 METAL CHIP 220 5% 1/10W

R41 1-249-393-11 CARBON 10 5% 1/4W F

R42 1-249-393-11 CARBON 10 5% 1/4W F

R51 1-216-075-00 METAL CHIP 12K 5% 1/10W

R52 1-216-075-00 METAL CHIP 12K 5% 1/10W

R53 1-216-073-00 METAL CHIP 10K 5% 1/10W

R54 1-216-309-00 METAL CHIP 5.6 5% 1/10W

R55 1-216-309-00 METAL CHIP 5.6 5% 1/10W

R56 1-216-298-00 METAL CHIP 2.2 5% 1/10W

R71 1-216-082-00 METAL GLAZE 24K 5% 1/10W

R72 1-216-081-00 METAL CHIP 22K 5% 1/10W

R73 1-216-089-00 METAL CHIP 47K 5% 1/10W

R74 1-216-089-00 METAL CHIP 47K 5% 1/10W

## &lt; VARIABLE RESISTOR &gt;

RV11 1-238-012-11 RES, ADJ, CARBON 1K

RV12 1-238-551-11 RES, ADJ, CARBON 220K

RV21 1-238-012-11 RES, ADJ, CARBON 1K

Ref. No.	Part No.	Description		Remark
RV22	1-238-551-11	RES, ADJ, CARBON	220K	
RV71	1-238-016-11	RES, ADJ, CARBON	10K	
RV72	1-238-016-11	RES, ADJ, CARBON	10K	
< RELAY >				
RY31	1-515-726-11	RELAY		
< TRANSFORMER >				
T51	1-406-419-11	COIL, BIAS OSCILLATION		
*****				
A-4617-161-A BD BOARD, COMPLETE				
*****				
< CAPACITOR >				
C101	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C102	1-163-989-11	CERAMIC CHIP	0.033uF	10% 25V
C103	1-126-163-11	ELECT	4.7uF	20% 50V
C104	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C105	1-126-154-11	ELECT	47uF	20% 6.3V
C106	1-126-154-11	ELECT	47uF	20% 6.3V
C107	1-126-154-11	ELECT	47uF	20% 6.3V
C108	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C109	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10% 25V
C111	1-131-367-00	TANTALUM	22uF	10% 20V
C112	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C113	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C114	1-164-161-11	CERAMIC CHIP	0.0022uF	10% 100V
C115	1-164-161-11	CERAMIC CHIP	0.0022uF	10% 100V
C116	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C117	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C118	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C119	1-164-161-11	CERAMIC CHIP	0.0022uF	10% 100V
C120	1-163-989-11	CERAMIC CHIP	0.033uF	10% 25V
C121	1-163-019-00	CERAMIC CHIP	0.0068uF	10% 50V
C122	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C123	1-163-006-11	CERAMIC CHIP	560PF	10% 50V
C124	1-164-161-11	CERAMIC CHIP	0.0022uF	10% 100V
C125	1-163-023-00	CERAMIC CHIP	0.015uF	5% 50V
C126	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C127	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C128	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C129	1-163-038-00	CERAMIC CHIP	0.1uF	25V
< CONNECTOR >				
CN101	1-568-796-11	SOCKET, CONNECTOR	22P	
CN102	1-568-795-11	SOCKET, CONNECTOR	12P	
CN103	1-564-721-11	PIN, CONNECTOR (SMALL TYPE)	5P	

Ref. No.	Part No.	Description		Remark
< DIODE >				
D101	8-719-021-25	DIODE	UZM4.7X	
< IC >				
IC101	8-752-058-77	IC	CXA1372AQ	
IC102	8-759-822-36	IC	LA6532M	
IC103	8-759-833-65	IC	M54641L	
< JACK >				
J101	1-216-295-00	METAL CHIP	0	5% 1/10W
J102	1-216-295-00	METAL CHIP	0	5% 1/10W
< MOTOR >				
M101	X-4917-504-1	MOTOR ASSY (SLED)		
< TRANSISTOR >				
Q101	8-729-901-01	TRANSISTOR	DTC144EK	
< RESISTOR >				
R101	1-216-097-00	METAL CHIP	100K	5% 1/10W
R102	1-216-095-00	METAL CHIP	82K	5% 1/10W
R103	1-216-091-00	METAL CHIP	56K	5% 1/10W
R104	1-216-099-00	METAL CHIP	120K	5% 1/10W
R105	1-216-069-00	METAL CHIP	6.8K	5% 1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5% 1/10W
R107	1-216-114-00	METAL GLAZE	510K	5% 1/10W
R108	1-216-105-00	METAL CHIP	220K	5% 1/10W
R109	1-216-061-00	METAL CHIP	3.3K	5% 1/10W
R110	1-216-049-00	METAL CHIP	1K	5% 1/10W
R111	1-216-049-00	METAL CHIP	1K	5% 1/10W
R112	1-216-083-00	METAL CHIP	27K	5% 1/10W
R113	1-216-071-00	METAL CHIP	8.2K	5% 1/10W
R114	1-216-105-00	METAL CHIP	220K	5% 1/10W
R115	1-216-073-00	METAL CHIP	10K	5% 1/10W
R116	1-216-085-00	METAL CHIP	33K	5% 1/10W
R117	1-216-085-00	METAL CHIP	33K	5% 1/10W
R118	1-216-093-00	METAL CHIP	68K	5% 1/10W
R119	1-216-081-00	METAL CHIP	22K	5% 1/10W
R120	1-216-079-00	METAL CHIP	18K	5% 1/10W
R121	1-216-079-00	METAL CHIP	18K	5% 1/10W
R122	1-216-079-00	METAL CHIP	18K	5% 1/10W
R123	1-216-049-00	METAL CHIP	1K	5% 1/10W
R124	1-216-001-00	METAL CHIP	10	5% 1/10W
R125	1-216-001-00	METAL CHIP	10	5% 1/10W
< VARIABLE RESISTOR >				
RV101	1-238-016-11	RES, ADJ, CARBON	10K	
RV102	1-238-016-11	RES, ADJ, CARBON	10K	

# CD MAIN

Ref. No.	Part No.	Description	Remark	
< SWITCH >				
S101	1-572-085-11	SWITCH, LEAF (LIMIT)		
*****				
*	A-4356-652-A	CD MAIN BOARD, COMPLETE (D209:AEP, E, IT, EE, EA, AUS, MY, SP/D309:AEP, E, IT, EA, EE, MY, SP, CIS, AUS)		
*****				
*	A-4356-661-A	CD MAIN BOARD, COMPLETE (D209:UK, G/D309:UK, G)		
*****				
7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S				
< CAPACITOR >				
C500	1-124-564-11	ELECT	4700uF	20% 25V
C501	1-126-946-11	ELECT	6800uF	20% 25V
C502	1-126-176-11	ELECT	220uF	20% 10V
C503	1-124-907-11	ELECT	10uF	20% 50V
C504	1-124-903-11	ELECT	1uF	20% 50V
C505	1-124-907-11	ELECT	10uF	20% 50V
C506	1-124-472-11	ELECT	470uF	20% 10V
C507	1-164-159-11	CERAMIC	0.1uF	50V
C508	1-124-472-11	ELECT	470uF	20% 10V
C509	1-164-159-11	CERAMIC	0.1uF	50V
C510	1-136-165-00	FILM	0.1uF	5% 50V
C511	1-136-165-00	FILM	0.1uF	5% 50V
C512	1-124-443-00	ELECT	100uF	20% 10V
C513	1-164-159-11	CERAMIC	0.1uF	50V
C515	1-136-161-00	FILM	0.047uF	5% 50V
C516	1-161-374-11	CERAMIC	0.0015uF	20% 50V
C517	1-124-443-00	ELECT	100uF	20% 10V
C518	1-124-902-00	ELECT	0.47uF	20% 50V
C519	1-136-153-00	FILM	0.01uF	5% 50V
C520	1-124-443-00	ELECT	100uF	20% 10V
C521	1-136-165-00	FILM	0.1uF	5% 50V
C522	1-124-472-11	ELECT	470uF	20% 10V
C524	1-126-176-11	ELECT	220uF	20% 10V
C525	1-164-159-11	CERAMIC	0.1uF	50V
C526	1-124-443-00	ELECT	100uF	20% 10V
C527	1-161-494-00	CERAMIC	0.022uF	25V
C528	1-162-196-31	CERAMIC	5.6PF	10% 50V
C529	1-162-196-31	CERAMIC	5.6PF	10% 50V
C530	1-124-443-00	ELECT	100uF	20% 10V
C531	1-161-494-00	CERAMIC	0.022uF	25V
C532	1-162-283-31	CERAMIC	120PF	10% 50V
C533	1-162-283-31	CERAMIC	120PF	10% 50V
C534	1-110-335-11	MYLAR	100PF	5% 50V
C534	1-137-358-91	FILM	0.0001uF	5% 50V
C535	1-110-335-11	MYLAR	100PF	5% 50V

Ref. No.	Part No.	Description	Remark	
C535	1-137-358-91	FILM	0.0001uF	5% 50V
C536	1-110-335-11	MYLAR	100PF	5% 50V
C536	1-137-358-91	FILM	0.0001uF	5% 50V
C537	1-110-335-11	MYLAR	100PF	5% 50V
C537	1-137-358-91	FILM	0.0001uF	5% 50V
C538	1-164-159-11	CERAMIC	0.1uF	50V
C539	1-164-159-11	CERAMIC	0.1uF	50V
C542	1-130-471-00	MYLAR	0.001uF	5% 50V
C542	1-137-364-11	FILM	0.001uF	5% 50V
C543	1-130-471-00	MYLAR	0.001uF	5% 50V
C543	1-137-364-11	FILM	0.001uF	5% 50V
C544	1-124-907-11	ELECT	10uF	20% 50V
C545	1-124-907-11	ELECT	10uF	20% 50V
C548	1-124-472-11	ELECT	470uF	20% 10V
C549	1-124-443-00	ELECT	100uF	20% 10V
C550	1-124-907-11	ELECT	10uF	20% 50V
C551	1-124-907-11	ELECT	10uF	20% 50V
C552	1-164-159-11	CERAMIC	0.1uF	50V
C553	1-164-159-11	CERAMIC	0.1uF	50V
C554	1-130-480-00	MYLAR	0.0056uF	5% 50V
C554	1-137-437-11	FILM	0.0056uF	5% 50V
C555	1-130-480-00	MYLAR	0.0056uF	5% 50V
C555	1-137-437-11	FILM	0.0056uF	5% 50V
C560	1-164-159-11	CERAMIC	0.1uF	50V
C561	1-164-159-11	CERAMIC	0.1uF	50V
C600	1-162-286-31	CERAMIC	220PF	10% 50V
C601	1-162-294-31	CERAMIC	0.001uF	10% 50V
C602	1-162-286-31	CERAMIC	220PF	10% 50V
C603	1-110-339-11	MYLAR	220PF	5% 50V
C603	1-137-360-91	FILM	220PF	5% 50V
C604	1-110-339-11	MYLAR	220PF	5% 50V
C604	1-137-360-91	FILM	220PF	5% 50V
C605	1-164-159-11	CERAMIC	0.1uF	50V
C607	1-161-494-00	CERAMIC	0.022uF	25V
C608	1-164-159-11	CERAMIC	0.1uF	50V
C609	1-164-159-11	CERAMIC	0.1uF	50V
C610	1-124-572-11	ELECT	100uF	20% 63V
C611	1-164-159-11	CERAMIC	0.1uF	50V
C612	1-124-907-11	ELECT	10uF	20% 50V
C613	1-164-159-11	CERAMIC	0.1uF	50V
C614	1-124-443-00	ELECT	100uF	20% 10V
C615	1-124-472-11	ELECT	470uF	20% 10V
C616	1-164-159-11	CERAMIC	0.1uF	50V
C801	1-162-290-31	CERAMIC	470PF	10% 50V
< CONNECTOR >				
* CN501	1-568-842-11	SOCKET, CONNECTOR 27P		
* CN502	1-568-822-11	SOCKET, CONNECTOR 22P		
* CN600	1-565-291-11	SOCKET, CONNECTOR 13P (SYSTEM CONTROL)		

Ref. No.	Part No.	Description	Remark
* CN601 1-564-511-11 PLUG, CONNECTOR 8P			
< DIODE >			
D504	8-719-000-54	DIODE UZL-6L3	
D505	8-719-987-63	DIODE 1N4148M	
D506	8-719-000-54	DIODE UZL-6L3	
D507	8-719-210-21	DIODE 11EQS04	
D508	8-719-987-63	DIODE 1N4148M	
D600	8-719-200-82	DIODE 11ES2	
D601	8-719-200-82	DIODE 11ES2	
D602	8-719-200-82	DIODE 11ES2	
D603	8-719-933-54	DIODE HZS9A2L	
D607	8-719-987-63	DIODE 1N4148M	
D608	8-719-987-63	DIODE 1N4148M	
D801	8-719-500-36	DIODE D2SB20	
< FERRITE BEAD >			
FB601	1-412-473-21	INDUCTOR OUE	
FB602	1-412-473-21	INDUCTOR OUE	
FB603	1-412-473-51	INDUCTOR OUE	
FB604	1-412-473-21	INDUCTOR OUE	
< IC >			
IC500	8-759-071-48	IC TA7807S	
IC501	8-759-630-21	IC M5290P-16	
IC502	8-752-352-93	IC CXD2500BQ	
IC503	8-752-355-45	IC CXD2565M	
IC504	8-759-000-49	IC MC14066BCP	
IC505	8-759-633-42	IC M5293L	
IC506	8-759-634-51	IC M5218AP	
IC507	8-759-634-51	IC M5218AP	
< COIL >			
L501	1-410-513-11	INDUCTOR 22uH	
< IC LINK >			
PS500	1-532-685-00	LINK, IC	
PS501	1-532-637-00	LINK, IC 1.0A	
< TRANSISTOR >			
Q500	8-729-140-96	TRANSISTOR 2SD774-34	
Q501	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q502	8-729-900-65	TRANSISTOR DTA144ES	
Q503	8-729-900-65	TRANSISTOR DTA144ES	
Q504	8-729-900-65	TRANSISTOR DTA144ES	
Q505	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q506	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q507	8-729-119-78	TRANSISTOR 2SC2785-HFE	

Ref. No.	Part No.	Description	Remark
< RESISTOR >			
Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q600	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q601	8-729-900-89	TRANSISTOR DTC144ES	
Q602	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R500	1-249-425-11	CARBON	4.7K 5% 1/4W F
R501	1-249-425-11	CARBON	4.7K 5% 1/4W F
R502	1-249-423-11	CARBON	3.3K 5% 1/4W F
R504	1-249-417-11	CARBON	1K 5% 1/4W F
R505	1-249-417-11	CARBON	1K 5% 1/4W F
R506	1-249-417-11	CARBON	1K 5% 1/4W F
R507	1-249-417-11	CARBON	1K 5% 1/4W F
R511	1-249-423-11	CARBON	3.3K 5% 1/4W F
R512	1-249-423-11	CARBON	3.3K 5% 1/4W F
R513	1-249-429-11	CARBON	10K 5% 1/4W
R514	1-249-441-11	CARBON	100K 5% 1/4W
R515	1-249-429-11	CARBON	10K 5% 1/4W
R516	1-249-417-11	CARBON	1K 5% 1/4W F
R517	1-249-417-11	CARBON	1K 5% 1/4W F
R518	1-249-420-11	CARBON	1.8K 5% 1/4W F
R519	1-249-417-11	CARBON	1K 5% 1/4W F
R520	1-249-429-11	CARBON	10K 5% 1/4W
R521	1-249-433-11	CARBON	22K 5% 1/4W
R522	1-249-433-11	CARBON	22K 5% 1/4W
R523	1-249-433-11	CARBON	22K 5% 1/4W
R524	1-249-433-11	CARBON	22K 5% 1/4W
R525	1-249-425-11	CARBON	4.7K 5% 1/4W F
R526	1-249-433-11	CARBON	22K 5% 1/4W
R527	1-249-433-11	CARBON	22K 5% 1/4W
R528	1-249-433-11	CARBON	22K 5% 1/4W
R529	1-249-433-11	CARBON	22K 5% 1/4W
R530	1-249-433-11	CARBON	22K 5% 1/4W
R531	1-249-433-11	CARBON	22K 5% 1/4W
R532	1-249-433-11	CARBON	22K 5% 1/4W
R533	1-249-433-11	CARBON	22K 5% 1/4W
R534	1-249-419-11	CARBON	1.5K 5% 1/4W F
R535	1-249-419-11	CARBON	1.5K 5% 1/4W F
R536	1-249-419-11	CARBON	1.5K 5% 1/4W F
R537	1-249-419-11	CARBON	1.5K 5% 1/4W F
R538	1-249-421-11	CARBON	2.2K 5% 1/4W F
R539	1-249-421-11	CARBON	2.2K 5% 1/4W F
R542	1-249-441-11	CARBON	100K 5% 1/4W
R543	1-249-441-11	CARBON	100K 5% 1/4W
R544	1-249-425-11	CARBON	4.7K 5% 1/4W F
R545	1-249-425-11	CARBON	4.7K 5% 1/4W F
R548	1-249-425-11	CARBON	4.7K 5% 1/4W F
R549	1-249-425-11	CARBON	4.7K 5% 1/4W F

## CD MAIN

## CD PANEL

Ref. No.	Part No.	Description	Remark
R550	1-249-413-11	CARBON	470 5% 1/4W F
R551	1-249-441-11	CARBON	100K 5% 1/4W
R552	1-249-441-11	CARBON	100K 5% 1/4W
R553	1-249-441-11	CARBON	100K 5% 1/4W
R600	1-249-409-11	CARBON	220 5% 1/4W F
R601	1-249-409-11	CARBON	220 5% 1/4W F
R602	1-249-433-11	CARBON	22K 5% 1/4W
R603	1-249-433-11	CARBON	22K 5% 1/4W
R604	1-249-433-11	CARBON	22K 5% 1/4W
R609	1-249-435-11	CARBON	33K 5% 1/4W
R610	1-249-438-11	CARBON	56K 5% 1/4W
R611	1-249-429-11	CARBON	10K 5% 1/4W
R612	1-249-429-11	CARBON	10K 5% 1/4W
R613	1-249-417-11	CARBON	1K 5% 1/4W F
R614	1-249-429-11	CARBON	10K 5% 1/4W
R615	1-249-433-11	CARBON	22K 5% 1/4W
R616	1-249-393-11	CARBON	10 5% 1/4W F
R617	1-249-413-11	CARBON	470 5% 1/4W F
R801	1-249-405-11	CARBON	100 5% 1/4W F

## &lt; TRANSFORMER &gt;

△T500 1-423-426-11 TRANSFORMER, POWER

## &lt; VIBRATOR &gt;

X501 1-579-833-21 VIBRATOR, CRYSTAL 33MHz

\* A-4356-653-A CD PANEL BOARD, COMPLETE (D209:AEP, E, IT, EE, EA, AUS, MY, SP/D309:AEP, E, IT, EA, EE, MY, SP, CIS, AUS)

\* A-4356-662-A CD PANEL BOARD, COMPLETE (D209:UK, G/D309:UK, G)

## &lt; CAPACITOR &gt;

C702	1-161-494-00 CERAMIC	0.022uF	25V
C703	1-161-494-00 CERAMIC	0.022uF	25V
C704	1-161-494-00 CERAMIC	0.022uF	25V
C705	1-164-159-11 CERAMIC	0.1uF	50V
C706	1-124-126-00 ELECT	47uF	20% 10V

## &lt; CONNECTOR &gt;

\* CN701 1-568-842-11 SOCKET, CONNECTOR 27P

## &lt; COMPOSITION CIRCUIT BLOCK &gt;

CP701	1-239-612-11	COMPOSITION CIRCUIT BLOCK
CP702	1-239-613-11	COMPOSITION CIRCUIT BLOCK

Ref. No.	Part No.	Description	Remark
< DIODE >			

D701 8-719-987-63 DIODE 1N4148M

D702 8-719-987-63 DIODE 1N4148M

D703 8-719-987-63 DIODE 1N4148M

D704 8-719-987-63 DIODE 1N4148M

D705 8-719-987-63 DIODE 1N4148M

D706 8-719-987-63 DIODE 1N4148M

D707 8-719-987-63 DIODE 1N4148M

D708 8-719-987-63 DIODE 1N4148M

D709 8-719-987-63 DIODE 1N4148M

D710 8-719-987-63 DIODE 1N4148M

D711 8-719-987-63 DIODE 1N4148M

D712 8-719-001-21 DIODE UZL-9H1

## &lt; FLUORESCENT INDICATOR &gt;

FLD701 1-519-681-21 INDICATOR TUBE, FLUORESCENT

## &lt; IC &gt;

IC701 8-759-156-33 IC uPD75216ACW-W32

## &lt; RESISTOR &gt;

R701 1-249-435-11 CARBON 33K 5% 1/4W

R702 1-249-435-11 CARBON 33K 5% 1/4W

R703 1-249-435-11 CARBON 33K 5% 1/4W

R704 1-249-435-11 CARBON 33K 5% 1/4W

R705 1-249-435-11 CARBON 33K 5% 1/4W

R706 1-249-425-11 CARBON 4.7K 5% 1/4W F

R707 1-249-425-11 CARBON 4.7K 5% 1/4W F

R708 1-249-439-11 CARBON 68K 5% 1/4W

## &lt; SWITCH &gt;

S701 1-554-303-21 SWITCH, TACTILE (PROGRAM)

S702 1-554-303-21 SWITCH, TACTILE (REPEAT)

S703 1-554-303-21 SWITCH, TACTILE (PAUSE)

S704 1-554-303-21 SWITCH, TACTILE (▷)

S705 1-554-303-21 SWITCH, TACTILE (CONTINUE)

S706 1-554-303-21 SWITCH, TACTILE (FADER)

S707 1-554-303-21 SWITCH, TACTILE (PLAY)

S708 1-554-303-21 SWITCH, TACTILE (AMS KK)

S709 1-554-303-21 SWITCH, TACTILE (SHUFFLE)

S710 1-554-303-21 SWITCH, TACTILE (TIME)

S711 1-554-303-21 SWITCH, TACTILE (◀)

S712 1-554-303-21 SWITCH, TACTILE (OPEN/CLOSE)

S713 1-554-303-21 SWITCH, TACTILE (STOP)

S714 1-554-303-21 SWITCH, TACTILE (AMS DD)

S715 1-554-303-21 SWITCH, TACTILE (EDIT/TIME FADE)

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## CD PANEL

## LEAF SW-A

## LEAF SW-B

## LOADING

## TC MAIN

Ref. No.	Part No.	Description	Remark
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S716 1-554-303-21 SWITCH, TACTILE (TIME SET)  
 S718 1-554-303-21 SWITCH, TACTILE (MUSIC SCAN)  
 S719 1-554-303-21 SWITCH, TACTILE (1)  
 S720 1-554-303-21 SWITCH, TACTILE (6)  
 S721 1-554-303-21 SWITCH, TACTILE (11)

S723 1-554-303-21 SWITCH, TACTILE (2)  
 S724 1-554-303-21 SWITCH, TACTILE (7)  
 S725 1-554-303-21 SWITCH, TACTILE (12)  
 S727 1-554-303-21 SWITCH, TACTILE (3)  
 S728 1-554-303-21 SWITCH, TACTILE (8)

S731 1-554-303-21 SWITCH, TACTILE (4)  
 S732 1-554-303-21 SWITCH, TACTILE (9)  
 S734 1-554-303-21 SWITCH, TACTILE (5)  
 S736 1-554-303-21 SWITCH, TACTILE (10)  
 S739 1-554-303-21 SWITCH, TACTILE (>12)

S740 1-554-303-21 SWITCH, TACTILE (CHECK)  
 S741 1-554-303-21 SWITCH, TACTILE (CLEAR)  
 S742 1-554-303-21 SWITCH, TACTILE (A. SPACE/A. CUE)

## &lt; VIBRATOR &gt;

X701 1-577-082-11 VIBRATOR, CERAMIC 4MHz

\*\*\*\*\*

\* 1-638-020-11 LEAF SW-A BOARD

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## &lt; CONNECTOR &gt;

\* CNP81 1-568-850-11 SOCKET, CONNECTOR 7P

## &lt; IC &gt;

IC81 8-719-710-03 DIODE NJL5165K-B

## &lt; RESISTOR &gt;

R84 1-249-417-11 CARBON 1K 5% 1/4W F  
 R85 1-249-408-11 CARBON 180 5% 1/4W F

## &lt; SWITCH &gt;

S81 1-571-958-11 SWITCH, PUSH (1 KEY) (STOP DET)  
 S82 1-571-281-21 SWITCH, LEAF (TYPE II DET)  
 S86 1-571-281-21 SWITCH, LEAF (HALF DET)

\* 1-638-020-11 LEAF SW-B BOARD

\*\*\*\*\*

8-719-710-03 DIODE NJL5165K-B

## &lt; CONNECTOR &gt;

\* CNP81 1-568-850-11 SOCKET, CONNECTOR 7P

Ref. No.	Part No.	Description	Remark
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## &lt; RESISTOR &gt;

R81 1-249-414-11 CARBON 560 5% 1/4W F  
 R82 1-247-818-11 CARBON 300 5% 1/4W  
 R83 1-247-834-11 CARBON 1.3K 5% 1/4W  
 R84 1-249-417-11 CARBON 1K 5% 1/4W F  
 R85 1-249-408-11 CARBON 180 5% 1/4W F

## &lt; SWITCH &gt;

S81 1-571-958-11 SWITCH, PUSH (1 KEY) (STOP DET)  
 S82 1-571-281-21 SWITCH, LEAF (TYPE II DET)  
 S84 1-571-281-21 SWITCH, LEAF (ERASE PROOF)  
 S85 1-571-281-21 SWITCH, LEAF (ERASE PROOF)  
 S86 1-571-281-21 SWITCH, LEAF (HALF DET)

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\* 1-632-202-11 LOADING BOARD

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## &lt; CONNECTOR &gt;

\* CN301 1-564-707-11 PIN, CONNECTOR (SMALL TYPE) 5P

## &lt; MOTOR &gt;

M201 X-4604-363-A MOTOR (L) ASSY

## &lt; SWITCH &gt;

S271 1-572-086-11 SWITCH, LEAF  
 S272 1-572-086-11 SWITCH, LEAF

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\* A-4356-643-A TC MAIN BOARD, COMPLETE (D209:AEP, E, IT, EE, EA, AUS, MY, SP/D309:AEP, E, IT, EA, EE, MY, SP, CIS, AUS)

\* A-4356-654-A TC MAIN BOARD, COMPLETE (D209:UK, G/D309:UK, G)

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\* 4-942-204-01 PLATE, GROUND

## &lt; CAPACITOR &gt;

C122	1-130-479-00 MYLAR	0.0047uF	5%	50V
C123	1-162-291-31 CERAMIC	560PF	10%	50V
C126	1-136-165-00 FILM	0.1uF	5%	50V
C127	1-126-791-11 ELECT	10uF	20%	35V
C128	1-126-301-11 ELECT	1uF	20%	50V

C129	1-124-465-00 ELECT	0.47uF	20%	50V
C130	1-126-791-11 ELECT	10uF	20%	35V
C131	1-164-159-11 CERAMIC	0.1uF		50V
C132	1-126-791-11 ELECT	10uF	20%	35V
C141	1-126-301-11 ELECT	1uF	20%	50V

C142	1-126-791-11 ELECT	10uF	20%	35V
C143	1-161-375-00 CERAMIC	0.0022uF	20%	50V
C222	1-130-479-00 MYLAR	0.0047uF	5%	50V
C223	1-162-291-31 CERAMIC	560PF	10%	50V
C226	1-136-165-00 FILM	0.1uF	5%	50V

# TC MAIN

Ref. No.	Part No.	Description	Remark		
C227	1-126-791-11	ELECT	10uF	20%	35V
C228	1-126-301-11	ELECT	1uF	20%	50V
C229	1-124-465-00	ELECT	0.47uF	20%	50V
C230	1-126-791-11	ELECT	10uF	20%	35V
C231	1-161-377-00	CERAMIC	0.0047uF	20%	16V
C232	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C233	1-124-465-00	ELECT	0.47uF	20%	50V
C241	1-126-301-11	ELECT	1uF	20%	50V
C242	1-126-791-11	ELECT	10uF	20%	35V
C243	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C301	1-126-791-11	ELECT	10uF	20%	35V
C302	1-126-926-11	ELECT	1000uF	20%	10V
C303	1-123-382-00	ELECT	3.3uF	20%	100V
C304	1-164-159-11	CERAMIC	0.1uF		50V
C305	1-164-159-11	CERAMIC	0.1uF		50V
C306	1-126-933-11	ELECT	100uF	20%	16V
C307	1-126-933-11	ELECT	100uF	20%	16V
C308	1-126-926-11	ELECT	1000uF	20%	10V
C309	1-126-926-11	ELECT	1000uF	20%	10V
C310	1-126-791-11	ELECT	10uF	20%	35V
C311	1-126-791-11	ELECT	10uF	20%	35V
C312	1-126-949-11	ELECT	220uF	20%	35V
C314	1-124-584-00	ELECT	100uF	20%	10V
C315	1-126-926-11	ELECT	1000uF	20%	10V
C316	1-126-933-11	ELECT	100uF	20%	16V
C317	1-126-933-11	ELECT	100uF	20%	16V
C318	1-126-933-11	ELECT	100uF	20%	16V
C456	1-162-290-31	CERAMIC	470PF	10%	50V
C457	1-162-290-31	CERAMIC	470PF	10%	50V
C458	1-164-159-11	CERAMIC	0.1uF		50V
C459	1-164-159-11	CERAMIC	0.1uF		50V
< CONNECTOR >					
* CN101	1-564-523-11	PLUG, CONNECTOR 8P			
* CN301	1-564-519-11	PLUG, CONNECTOR 4P			
* CN302	1-564-506-11	PLUG, CONNECTOR 3P			
* CN303	1-564-506-11	PLUG, CONNECTOR 3P			
* CN401	1-564-517-11	PLUG, CONNECTOR 2P			
CN402	1-580-783-11	CONNECTOR, BOARD TO BOARD			
CN403	1-580-783-11	CONNECTOR, BOARD TO BOARD			
CN404	1-580-783-11	CONNECTOR, BOARD TO BOARD			
CN405	1-568-437-11	SOCKET, CONNECTOR 7P			
CN406	1-568-437-11	SOCKET, CONNECTOR 7P			
CN407	1-568-441-11	SOCKET, CONNECTOR 9P			
CN408	1-568-444-11	SOCKET, CONNECTOR 13P			
< DIODE >					
D301	8-719-000-78	DIODE UZL-7L2			

Ref. No.	Part No.	Description	Remark		
D302	8-719-987-63	DIODE 1N4148M			
D303	8-719-987-63	DIODE 1N4148M			
D304	8-719-987-63	DIODE 1N4148M			
D305	8-719-200-82	DIODE 11ES2			
D306	8-719-200-82	DIODE 11ES2			
D401	8-719-987-63	DIODE 1N4148M			
D402	8-719-987-63	DIODE 1N4148M			
D403	8-719-987-63	DIODE 1N4148M			
< IC >					
IC101	8-759-098-75	IC HA12171NT			
IC301	8-759-071-48	IC M5F7807L			
IC401	8-759-076-36	IC M50964-SOX-1044			
IC402	8-759-635-63	IC M51943BSL			
IC403	8-759-207-05	IC TA7272P			
< TRANSISTOR >					
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q400	8-729-900-65	TRANSISTOR DTA144ES			
Q401	8-729-900-65	TRANSISTOR DTA144ES			
Q402	8-729-900-65	TRANSISTOR DTA144ES			
Q403	8-729-900-65	TRANSISTOR DTA144ES			
Q404	8-729-900-65	TRANSISTOR DTA144ES			
Q405	8-729-900-65	TRANSISTOR DTA144ES			
Q406	8-729-900-89	TRANSISTOR DTC144ES			
Q407	8-729-900-89	TRANSISTOR DTC144ES			
Q408	8-729-900-65	TRANSISTOR DTA144ES			
Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q410	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q411	8-729-801-84	TRANSISTOR ZSB1013-4			
Q412	8-729-801-84	TRANSISTOR ZSB1013-4			
Q413	8-729-900-65	TRANSISTOR DTA144ES			
Q414	8-729-900-89	TRANSISTOR DTC144ES			
< RESISTOR >					
R120	1-215-451-00	METAL	18K	1%	1/6W
R121	1-249-430-11	CARBON	12K	5%	1/4W
R122	1-249-431-11	CARBON	15K	5%	1/4W
R123	1-249-425-11	CARBON	4.7K	5%	1/4W F
R124	1-249-428-11	CARBON	8.2K	5%	1/4W F
R125	1-249-429-11	CARBON	10K	5%	1/4W
R127	1-249-429-11	CARBON	10K	5%	1/4W
R130	1-249-429-11	CARBON	10K	5%	1/4W
R131	1-249-425-11	CARBON	4.7K	5%	1/4W F
R132	1-249-429-11	CARBON	10K	5%	1/4W
R133	1-249-429-11	CARBON	10K	5%	1/4W
R135	1-247-864-11	CARBON	24K	5%	1/4W

## TC MAIN

## TC PANEL (A)

Ref. No.	Part No.	Description	Remark
R136	1-249-429-11	CARBON	10K 5% 1/4W
R137	1-249-429-11	CARBON	10K 5% 1/4W
R138	1-249-429-11	CARBON	10K 5% 1/4W
R141	1-249-421-11	CARBON	2.2K 5% 1/4W F
R142	1-249-428-11	CARBON	8.2K 5% 1/4W F
R143	1-247-840-00	CARBON	2.4K 5% 1/4W
R144	1-249-433-11	CARBON	22K 5% 1/4W
R145	1-249-417-11	CARBON	1K 5% 1/4W F
R221	1-249-430-11	CARBON	12K 5% 1/4W
R222	1-249-431-11	CARBON	15K 5% 1/4W
R223	1-249-425-11	CARBON	4.7K 5% 1/4W F
R224	1-249-428-11	CARBON	8.2K 5% 1/4W F
R225	1-247-882-11	CARBON	130K 5% 1/4W
R226	1-247-866-11	CARBON	30K 5% 1/4W
R229	1-249-429-11	CARBON	10K 5% 1/4W
R230	1-249-432-11	CARBON	18K 5% 1/4W
R231	1-247-885-00	CARBON	180K 5% 1/4W
R241	1-249-421-11	CARBON	2.2K 5% 1/4W F
R242	1-249-428-11	CARBON	8.2K 5% 1/4W F
R243	1-247-840-00	CARBON	2.4K 5% 1/4W
R244	1-249-433-11	CARBON	22K 5% 1/4W
R245	1-249-417-11	CARBON	1K 5% 1/4W F
R300	1-249-405-11	CARBON	100 5% 1/4W F
R301	1-249-421-11	CARBON	2.2K 5% 1/4W F
R302	1-249-405-11	CARBON	100 5% 1/4W F
R303	1-249-422-11	CARBON	2.7K 5% 1/4W F
R352	1-249-393-11	CARBON	10 5% 1/4W F
R400	1-249-389-11	CARBON	4.7 5% 1/4W F
R401	1-249-429-11	CARBON	10K 5% 1/4W
R402	1-247-903-00	CARBON	1M 5% 1/4W
R403	1-247-895-00	CARBON	470K 5% 1/4W
R404	1-247-895-00	CARBON	470K 5% 1/4W
R405	1-249-408-11	CARBON	180 5% 1/4W F
R406	1-249-408-11	CARBON	180 5% 1/4W F
R407	1-249-410-11	CARBON	270 5% 1/4W F
R408	1-247-812-11	CARBON	160 5% 1/4W
R409	1-247-812-11	CARBON	160 5% 1/4W
R410	1-247-816-11	CARBON	240 5% 1/4W
R411	1-247-812-11	CARBON	160 5% 1/4W
R412	1-249-411-11	CARBON	330 5% 1/4W
R413	1-249-429-11	CARBON	10K 5% 1/4W
R414	1-249-429-11	CARBON	10K 5% 1/4W
R415	1-249-421-11	CARBON	2.2K 5% 1/4W F
R416	1-249-421-11	CARBON	2.2K 5% 1/4W F
R417	1-249-437-11	CARBON	47K 5% 1/4W
R418	1-249-429-11	CARBON	10K 5% 1/4W
R420	1-249-425-11	CARBON	4.7K 5% 1/4W F
R422	1-249-425-11	CARBON	4.7K 5% 1/4W F
R423	1-249-429-11	CARBON	10K 5% 1/4W

Ref. No.	Part No.	Description	Remark
R425	1-249-417-11	CARBON	1K 5% 1/4W F
R426	1-249-417-11	CARBON	1K 5% 1/4W F
R427	1-249-417-11	CARBON	1K 5% 1/4W F
R431	1-249-429-11	CARBON	10K 5% 1/4W
R432	1-249-415-11	CARBON	680 5% 1/4W F
R433	1-249-429-11	CARBON	10K 5% 1/4W
R434	1-249-415-11	CARBON	680 5% 1/4W F
R435	1-249-429-11	CARBON	10K 5% 1/4W
R451	1-249-425-11	CARBON	4.7K 5% 1/4W F
R452	1-249-435-11	CARBON	33K 5% 1/4W
R453	1-249-437-11	CARBON	47K 5% 1/4W
R454	1-247-872-11	CARBON	51K 5% 1/4W
R455	1-247-862-11	CARBON	20K 5% 1/4W
R456	1-247-866-11	CARBON	30K 5% 1/4W
R457	1-247-872-11	CARBON	51K 5% 1/4W
R458	1-249-405-11	CARBON	100 5% 1/4W F
R459	1-249-381-11	CARBON	1 5% 1/4W F
R460	1-249-381-11	CARBON	1 5% 1/4W F
R461	1-249-425-11	CARBON	4.7K 5% 1/4W F
R462	1-249-435-11	CARBON	33K 5% 1/4W
R463	1-249-437-11	CARBON	47K 5% 1/4W
R464	1-247-872-11	CARBON	51K 5% 1/4W
R465	1-247-862-11	CARBON	20K 5% 1/4W
R466	1-247-866-11	CARBON	30K 5% 1/4W
R467	1-247-872-11	CARBON	51K 5% 1/4W
R468	1-249-405-11	CARBON	100 5% 1/4W F
R469	1-249-381-11	CARBON	1 5% 1/4W F
R470	1-249-381-11	CARBON	1 5% 1/4W F
R471	1-249-429-11	CARBON	10K 5% 1/4W
R472	1-249-425-11	CARBON	4.7K 5% 1/4W F
R473	1-249-434-11	CARBON	27K 5% 1/4W
R474	1-249-429-11	CARBON	10K 5% 1/4W
R476	1-249-425-11	CARBON	4.7K 5% 1/4W F
R477	1-249-434-11	CARBON	27K 5% 1/4W
< VARIABLE RESISTOR >			
RV101	1-230-496-11	RES, ADJ, CARBON	10K
RV201	1-230-496-11	RES, ADJ, CARBON	10K
< VIBRATOR >			
X401	1-577-358-21	VIBRATOR, CERAMIC	
*****			
*	1-646-887-11	TC PANEL (A) BOARD	
*****			
< CONNECTOR >			
CN451	1-568-442-11	SOCKET, CONNECTOR 9P	

**TC PANEL (A)**
**TC PANEL (B)**

Ref. No.	Part No.	Description	Remark		
< DIODE >					
D481	8-719-313-65	DIODE SEL2410E-TH10			
D482	8-719-301-49	LED SEL2810A			
D483	8-719-301-49	LED SEL2810A			
< RESISTOR >					
R481	1-249-407-11	CARBON 150 5% 1/4W F			
R482	1-249-409-11	CARBON 220 5% 1/4W F			
R483	1-249-415-11	CARBON 680 5% 1/4W F			
R484	1-249-417-11	CARBON 1K 5% 1/4W F			
R485	1-249-426-11	CARBON 5.6K 5% 1/4W			
R486	1-249-430-11	CARBON 12K 5% 1/4W			
< SWITCH >					
S401	1-554-303-21	SWITCH, TACTILE (STOP)			
S402	1-554-303-21	SWITCH, TACTILE (►)			
S403	1-554-303-21	SWITCH, TACTILE (◀)			
S404	1-554-303-21	SWITCH, TACTILE (↔)			
S405	1-554-303-21	SWITCH, TACTILE (⤒)			
S406	1-572-269-11	SWITCH, SLIDE (DOLBY NR)			
S407	1-572-268-11	SWITCH, SLIDE (DIRECTION MODE)			
*****					
*	1-646-888-11	TC PANEL (B) BOARD			
*****					
< CONNECTOR >					
CN452	1-568-443-11	SOCKET, CONNECTOR 13P			
< DIODE >					
D491	8-719-301-37	LED SEL2210S-CD			
D492	8-719-301-49	LED SEL2810A			
D493	8-719-313-65	DIODE SEL2410E-TH10			
D494	8-719-301-49	LED SEL2810A			
D495	8-719-301-49	LED SEL2810A			
D496	8-719-301-37	LED SEL2210S-CD (D309)			
D497	8-719-301-37	LED SEL2210S-CD			
D498	8-719-301-37	LED SEL2210S-CD			
< RESISTOR >					
R490	1-249-407-11	CARBON 150 5% 1/4W F			
R491	1-249-409-11	CARBON 220 5% 1/4W F			
R492	1-249-411-11	CARBON 330 5% 1/4W			
R493	1-249-413-11	CARBON 470 5% 1/4W F			
R494	1-249-411-11	CARBON 330 5% 1/4W			
R495	1-249-413-11	CARBON 470 5% 1/4W F			
R496	1-249-415-11	CARBON 680 5% 1/4W F			
R497	1-249-417-11	CARBON 1K 5% 1/4W F			

Ref. No.	Part No.	Description	Remark		
R498	1-249-420-11	CARBON 1.8K 5% 1/4W F			
R499	1-249-424-11	CARBON 3.9K 5% 1/4W F			
< SWITCH >					
S451	1-554-303-21	SWITCH, TACTILE (STOP)			
S452	1-554-303-21	SWITCH, TACTILE (PAUSE)			
S453	1-554-303-21	SWITCH, TACTILE (►)			
S454	1-554-303-21	SWITCH, TACTILE (◀)			
S455	1-554-303-21	SWITCH, TACTILE (REC MUTE)			
S456	1-554-303-21	SWITCH, TACTILE (↔)			
S457	1-554-303-21	SWITCH, TACTILE (⤒)			
S458	1-554-303-21	SWITCH, TACTILE (REC)			
S459	1-554-303-21	SWITCH, TACTILE (DUBBING SPEED HIGH)			
S460	1-554-303-21	SWITCH, TACTILE (DUBBING SPEED NORMAL)			
S461	1-554-303-21	SWITCH, TACTILE (D309) (CD SYNCHRO)			
*****					
MISCELLANEOUS					
*****					
		1-575-001-11 WIRE, FLAT TYPE (12 CORE)			
		1-638-983-11 PC BOARD, MOTOR FLEXIBLE			
		1-696-634-21 WIRE (FLAT TYPE) (22 CORE)			
▲		8-848-144-11 DEVICE, OPTICAL KSS-240A			
56		1-751-209-11 WIRE (FLAT TYPE) (9 CORE)			
64		1-590-574-11 WIRE, FLAT TYPE (7 CORE)			
65		1-590-485-11 WIRE, FLAT TYPE (7 CORE)			
69		1-690-729-11 WIRE, FLAT TYPE (27 CORE)			
71		1-690-589-31 WIRE, FLAT TYPE (13 CORE) (D309:AUS)			
71		1-751-210-11 WIRE (FLAT TYPE) (13 CORE) (D209/D309: AEP, UK, E, G, IT, EE, EA, MY, SP, CIS)			
* 161		1-452-538-11 MAGNET			
HP901		A-2003-838-A DECK ASSY, HEAD (DECK A)			
HRPE901A		A-2004-190-A DECK ASSY, HEAD (DECK B)			
IC302		8-759-604-95 IC M5F79M07			
M101		X-4917-523-3 BASE (OUTSERT) ASSY (SPINDLE MOTOR)			
M901		X-3359-417-1 MOTOR ASSY (CAPSTAN)			
M902		X-3363-501-1 MOTOR ASSY (REEL)			
Q302		8-729-209-15 TRANSISTOR 2SD2012			
*****					
ACCESSORIES & PACKING MATERIALS					
*****					
* 10		3-703-713-41 STICKER, SONY SYMBOL (10) (D209:AUS/D309:UK, AUS)			
* 5		4-941-548-01 LABEL, CLASS 1			
*		4-957-503-01 INDIVIDUAL CARTON (D209:AEP, IT)			
*		4-958-606-01 CUSHION (D209:AEP, IT)			
*****					

Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

\*\*\*\*\*  
**HARDWARE LIST**  
\*\*\*\*\*

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-621-775-10	SCREW +B 2.6X4
#6	7-621-255-15	SCREW +P 2X3
#7	7-621-775-00	SCREW +B 2.6X3
#8	7-627-556-08	SCREW +P 2.6X2.8



# STR-A27/D209/D259

## SERVICE MANUAL

STR-A27, STR-D209 and STR-259 are the tuner and amplifier section in LBT-A27CDM, LBT-D209CD and LBT-D259CD respectively.

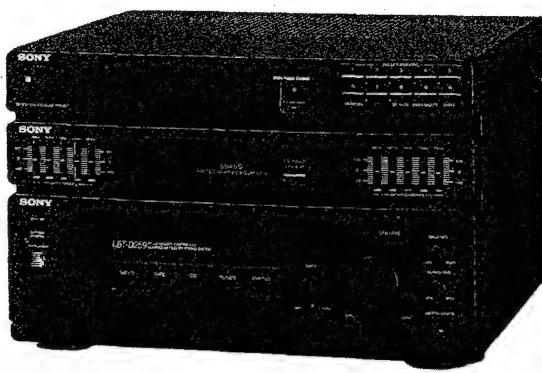


PHOTO: STR-D259

7/1/1  
Canadian Model

STR-D259

AEP Model

UK Model

STR-D209/D259

E Model

Australian Model

STR-A27

## SPECIFICATIONS

### Stereo FM-AM receiver

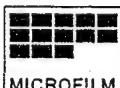
Tuner System	FM stereo FM/AM superheterodyne tuner
FM tuner section	
Tuning range	87.5 to 108 MHz (EXCEPT EE) 65.0 to 74.0 MHz (EE)
Antenna	75 ohms unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	MW:530 to 1710 kHz (Canadian model) 522 to 1611 kHz (Italian model) 531 to 1602 kHz (9 kHz step) 531 to 1710 kHz (10 kHz step) 531 to 1602 kHz (Other models)
Antenna	LW:153 to 279 kHz SW:5.95 to 17.90 kHz (Mideastern model)
Intermediate frequency	AM loop antenna External antenna terminal 450 kHz
Amplifier	
DIN power output	30 W + 30 W (6 ohms, at 1 kHz)
Continuous RMS power output	35 W + 35 W (6 ohms, at 1 kHz, 5% THD)
Music power output	60 W + 60 W (6 ohms)

Input	Jack type	Sensitivity	Impedance
VIDEO IN	Phono	300 mV	47 kohms
PHONO IN	Phono	3 mV	47 kohms

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

Frequency response	VIDEO: 15 Hz to 50 kHz $^{+0}_{-3}$ dB
General	
Power requirements	220 – 230 V AC, 50/60 Hz (AEP, IT, EE, G) 120 V AC, 60 Hz (CND) 240 V AC, 50 Hz (UK)
Power consumption	110 – 120 V/220 – 240 V AC, 50 Hz/60 Hz (E, AUS) 100 W (AEP, AE2, IT, EE, G, UK) 115 W (CND) 170 W (E, AUS, AU2)
Mass	Approx. 5.9 kg
Dimensions	Approx. 355 X 225 X 330 mm (w/h/d, including projections)

STEREO FM-AM RECEIVER  
**SONY**®



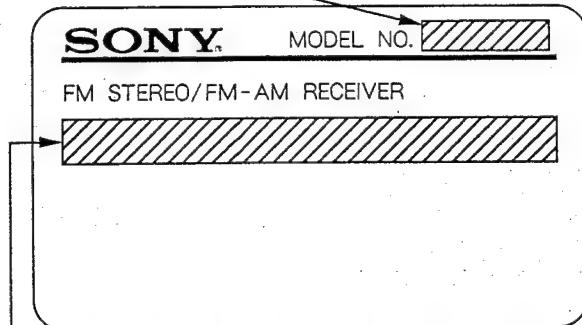
7/1/1

## TABLE OF CONTENTS

### — MODEL IDENTIFICATION —

(Specification Label)

STR-A27, STR-D209, STR-D259



- CND model : AC : 120V 60Hz 115W
- AEP, IT, EE, G model : AC : 220V-230V~50/60Hz 100W
- UK model : AC : 240V~50Hz 100W
- E, AUS model : AC : 110-120V/220-240V~50/60Hz 170W

**Note :** CND : Canadian model  
 G : German  
 IT : Italian model  
 EE : East European model  
 AUS, AU2 : Australian model

### • CAUTION

Be sure to use insulation sheet (A4-959-364-01) when replacing power transformer because it is safely related part.

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

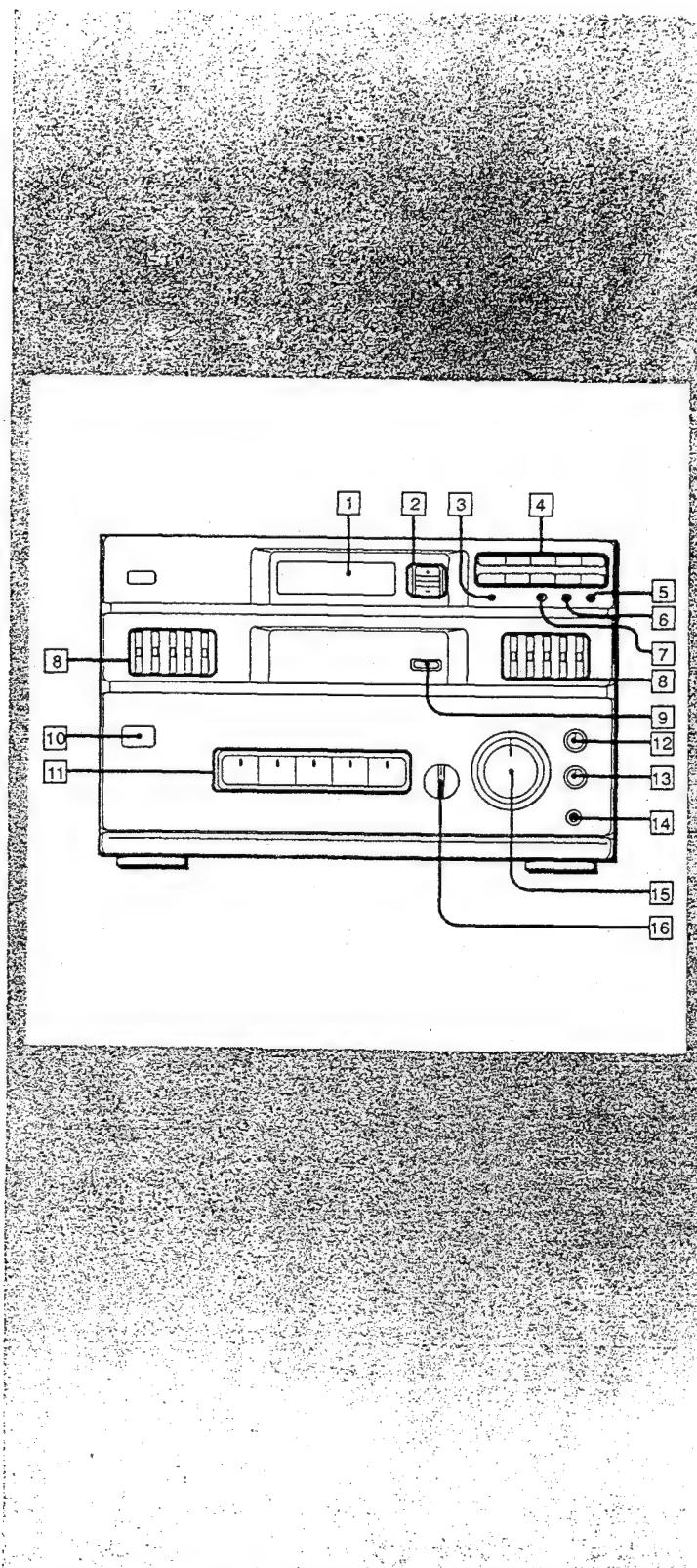
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### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

## SECTION 1 GENERAL

This section is extracted from instruction manual.



### Location of Controls

Refer to the pages indicated in parentheses for details.

#### Tuner

- 1 Display window
- 2 DUAL MODE TUNING +/− buttons (20, 22)
- 3 MEMORY button (22)
- 4 Numeric buttons (22)
- 5 SHIFT button (22)
- 6 BAND SELECT button (20)
- 7 ST/MUTE button (20,22)

#### Graphic Equalizer

- 8 5 BAND GRAPHIC EQUALIZER controls (16)
- 9 EQUALIZER switch (16)

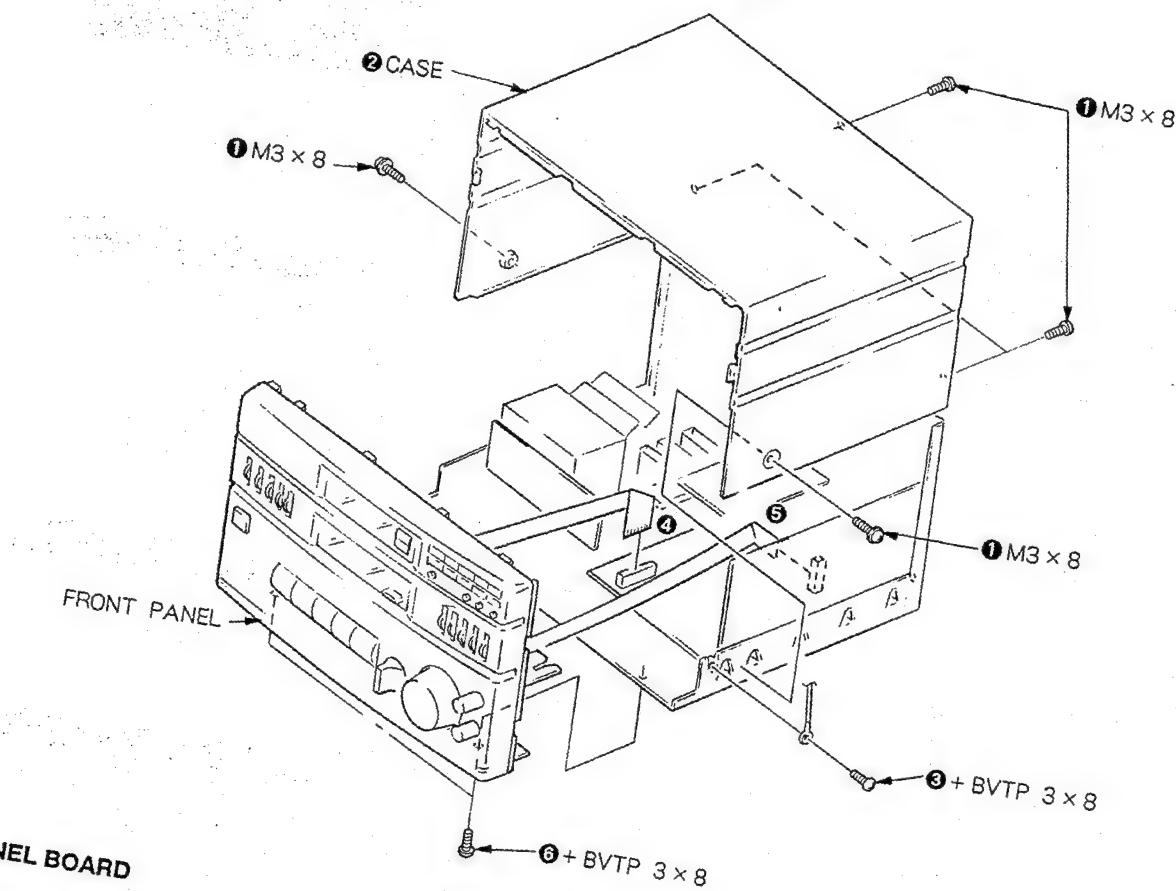
#### Amplifier

- 10 SYSTEM POWER button (14)
- 11 Function selectors and indicators (VIDEO/TAPE/CD/TUNER/PHONO)
- 12 BALANCE control (16)
- 13 SURROUND control (16)
- 14 HEADPHONES jack
- 15 VOLUME control and indicator (16)
- 16 DBFB (dynamic bass feedback) control (16)

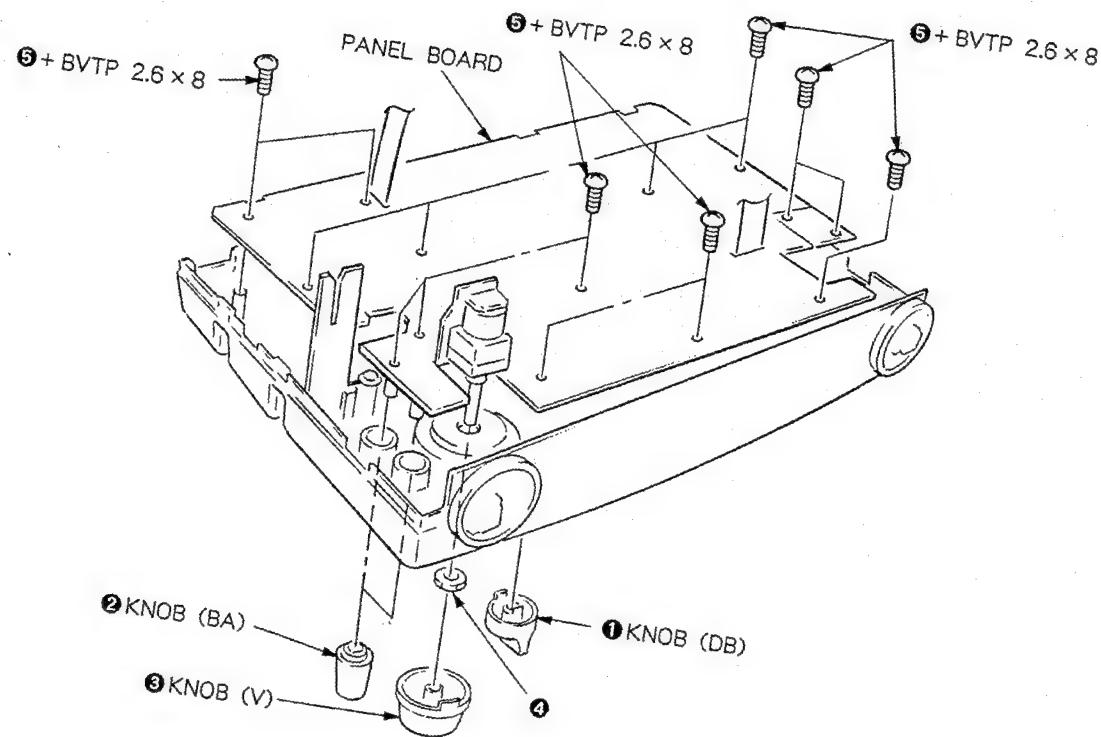
## SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

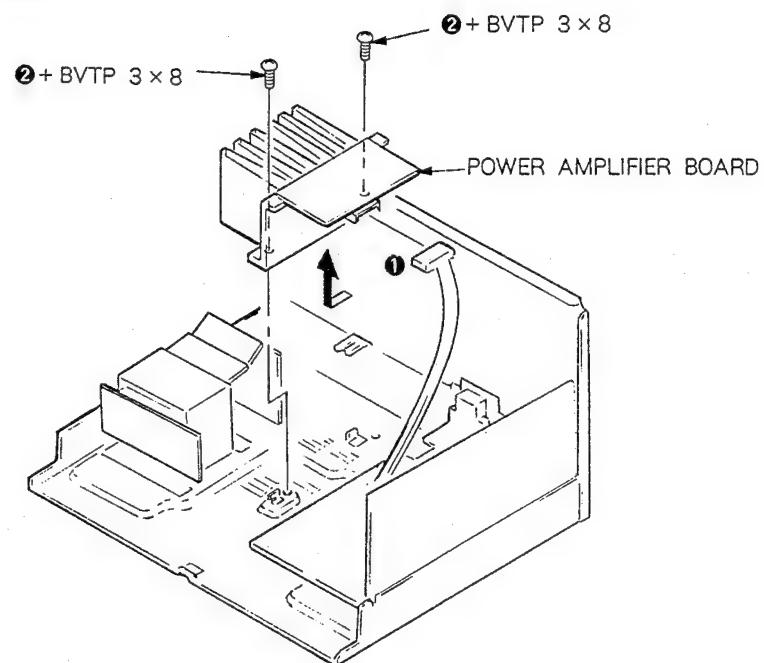
### 2-1. FRONT PANEL



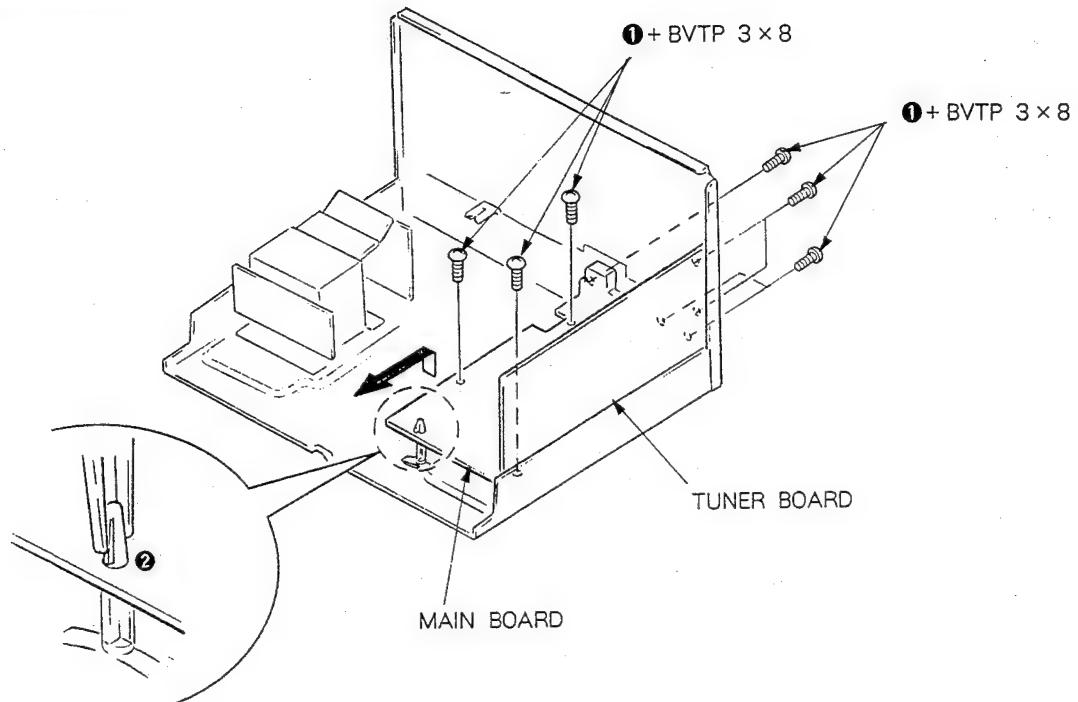
### 2-2. PANEL BOARD



## 2-3. POWER AMPLIFIER BOARD



## 2-4. MAIN /TUNER BOARD



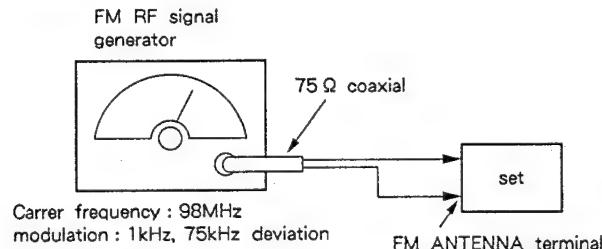
## SECTION 3 ADJUSTMENTS

**Note:** As a front-end (FE301) is difficult to repair if faulty, replace it with new one.

### TUNER SECTION

#### FM SECTION ADJUSTMENTS

Setting :



#### • TUNER OUT CHECK POINT

Speaker out receive 98MHz 60dB  $\mu$  (1mV) and set the SPEAKER out to 10dBs by VOLUME.

Speaker load : 6  $\Omega$  both CH

#### FM NULL Adjustment

Procedure :

- Supply a 60dB  $\mu$  (1mV) 98MHz signal from the ANTENNA terminal.
- Tune the set to 98MHz.
- Adjust T301 for 0V reading on the measurement point.

#### FM Tuned Indication Lighting Level Adjustment

Band : FM

ST/MUTE SW : OFF

Procedure :

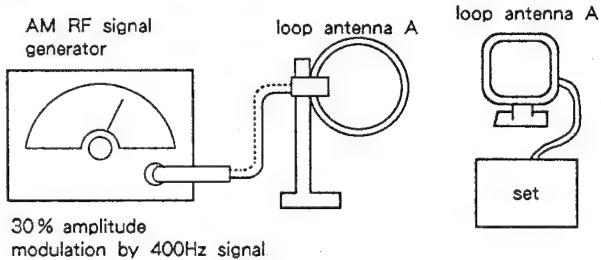
- Supply a  $24 \pm 1 \mu$  V ( $20 \pm 4 \text{dB}\mu$  (EE)) ( $25 \pm 4 \text{dB}\mu$  (EXCEPT EE)) 98MHz signal from the ANTENNA terminal.
- Tune the set to 98MHz.
- Adjust RV302 so that the FL601 TUNED light up.

Adjustment Location: main board

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by trimmer capacitors.

#### AM SECTION ADJUSTMENT

Setting :



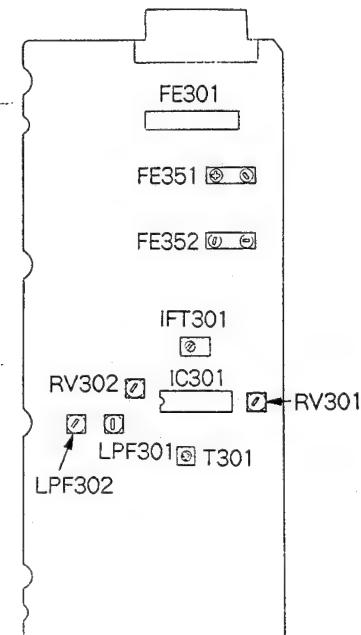
#### AM Tuned Indication Lighting Level Adjustment

Band : AM

Procedure :

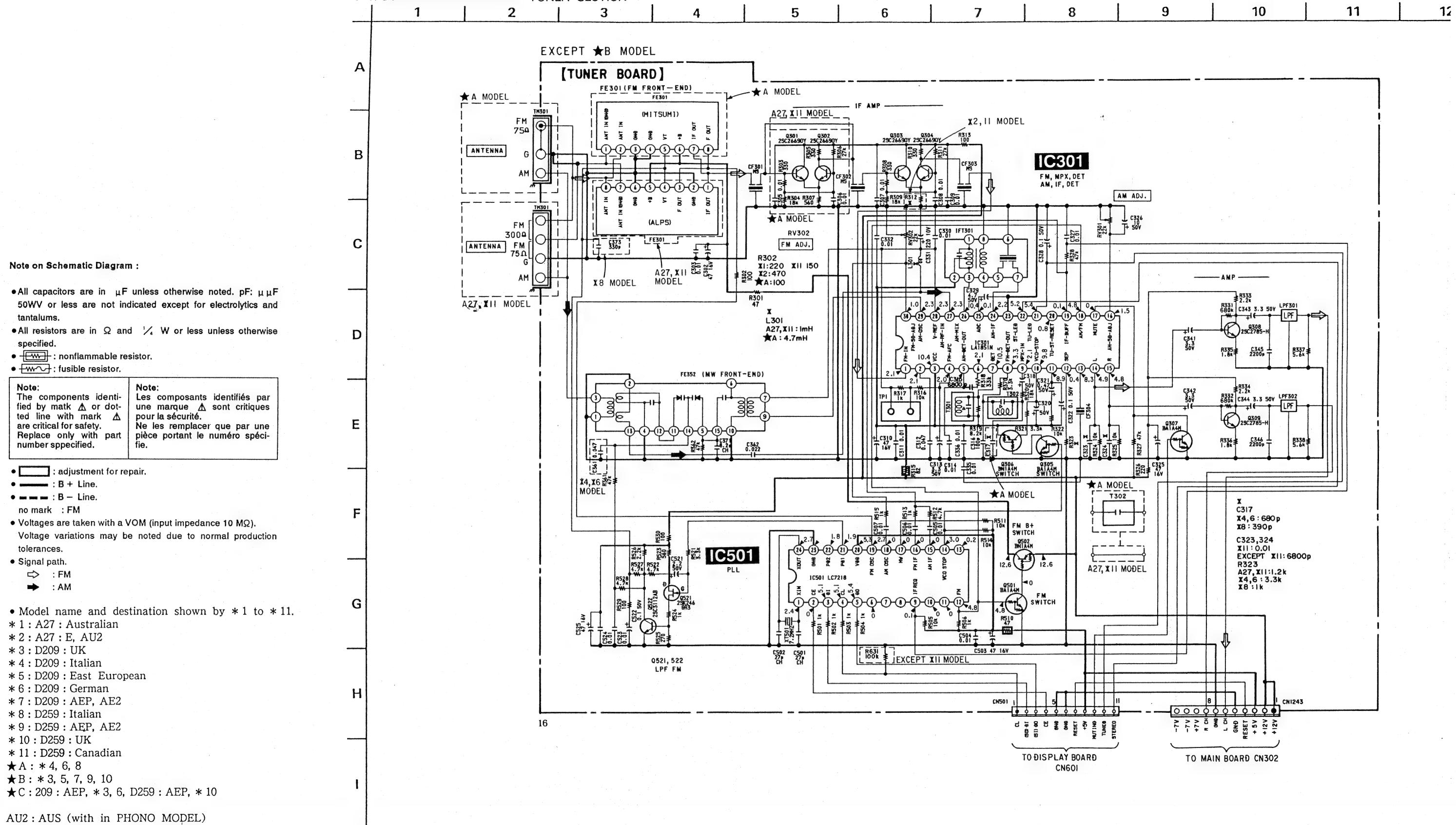
- Set loop antenna input level to 94dB $\mu$ /m, 1050 kHz and no signal tuned light should not on.
- Tune the set to 1050kHz
- Adjust RV301 so that the FL601 TUNED light up.

Adjustment Location: tuner board

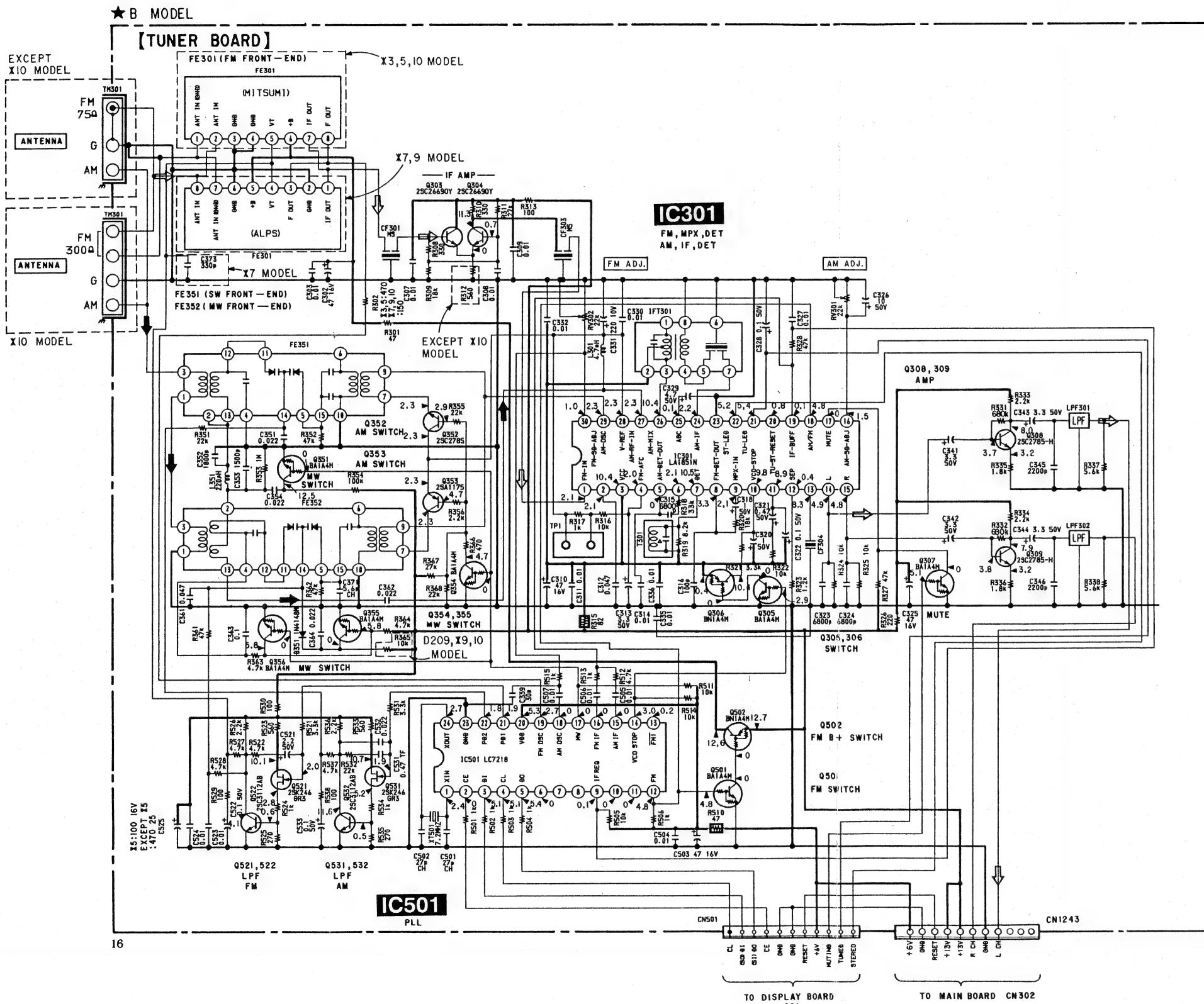


SECTION 4  
DIAGRAMS

4-1. SCHEMATIC DIAGRAM—TUNER SECTION—



13 14 15 16 17 18 19 20 21 22 23 24 25 26



## • Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D351(B)	E-6	IC1306	C-12
D1201	E-19	IC1601	J-19
D1202	E-15		
D1203	E-15	Q301(E)	D-3
D1204	G-15	Q302(E)	D-3
D1205	C-14	Q303(E)	E-3
D1251	G-19	Q303(B)	E-7
D1302	E-12	Q304(E)	E-3
D1303	E-12	Q304(B)	E-7
D1304	E-12	Q305(E)	I-3
D1305	E-13	Q305(B)	I-7
D1306	E-13	Q306(E)	I-3
D1307	J-23	Q306(B)	I-7
D1309	I-23	Q307(E)	H-4
D1311	I-24	Q307(B)	H-9
D1316	H-12	Q308(E)	H-4
D1317	J-12	Q308(B)	H-8
D1318	D-13	Q309(E)	H-4
D1319	D-14	Q309(B)	H-9
D1321	B-27	Q351(B)	D-7
D1322	C-27	Q352(B)	D-7
D1323	E-13	Q353(B)	E-7
D1324	E-13	Q354(B)	E-7
D1341	I-14	Q355(B)	E-6
D1345	I-13	Q356(B)	E-7
D1347	J-16	Q501(E)	F-1
D1354	B-25	Q501(B)	F-6
D1355	B-25	Q502(E)	F-1
D1368	D-14	Q502(B)	F-6
D1369	D-13	Q521(E)	C-4
D1370	J-24	Q521(B)	C-9
IC301(E)	G-2	Q522(B)	B-4
IC301(B)	G-7	Q531(B)	D-8
IC501(E)	E-4	Q532(B)	C-9
IC501(B)	E-9	Q1201	E-19
IC1001	D-11	Q1202	H-18
IC1002	G-11	Q1203	H-18
IC1003	I-11	Q1204	H-15
IC1201	F-20	Q1251	G-19
IC1202	F-15	Q1301	J-23
IC1302	J-12	Q1302	J-13
IC1303	I-14	Q1304	I-15
IC1304	H-13	Q1305	I-15
IC1305	H-14		

(B) : ★B

(E) : EXCEPT ★B

## Note on Mounting Diagram :

- — : Parts extracted from the component side.
- ■■■■■ : Pattern on the side which is seen.

• Model name and destination shown by \* 1 to \* 11.

\* 1 : A27 : Australian

\* 2 : A27 : E, AU2

\* 3 : D209 : UK

\* 4 : D209 : Italian

\* 5 : D209 : East European

\* 6 : D209 : German

\* 7 : D209 : AEP, AE2

\* 8 : D259 : Italian

\* 9 : D259 : AEP, AE2

\* 10 : D259 : UK

\* 11 : D259 : Canadian

★A : \* 4, 6, 8

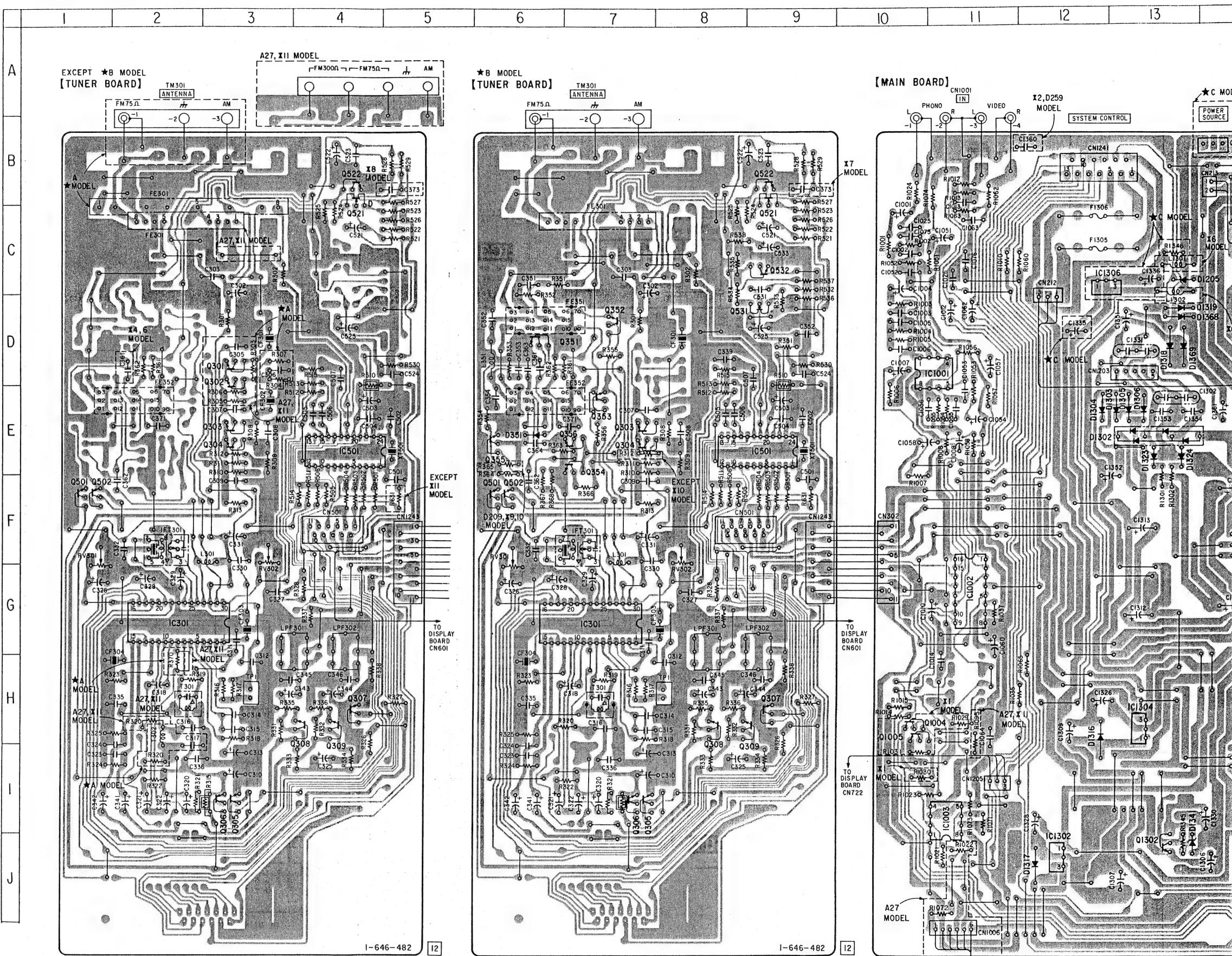
★B : \* 3, 5, 7, 9, 10

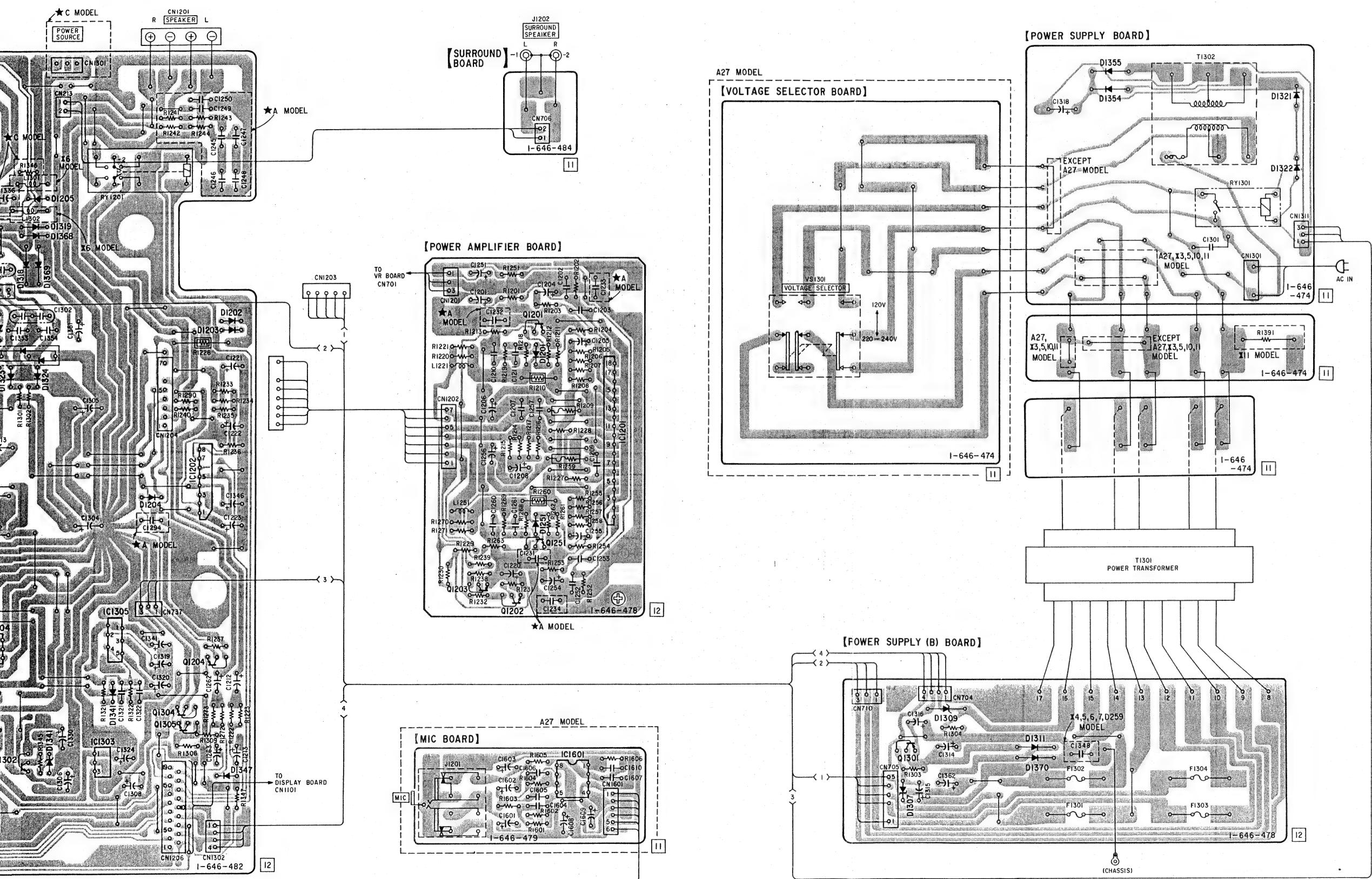
★C : 209 : AEP, \* 3, 6, D259 : AEP, \* 10

AU2 : AUS (with in PHONO MODEL)

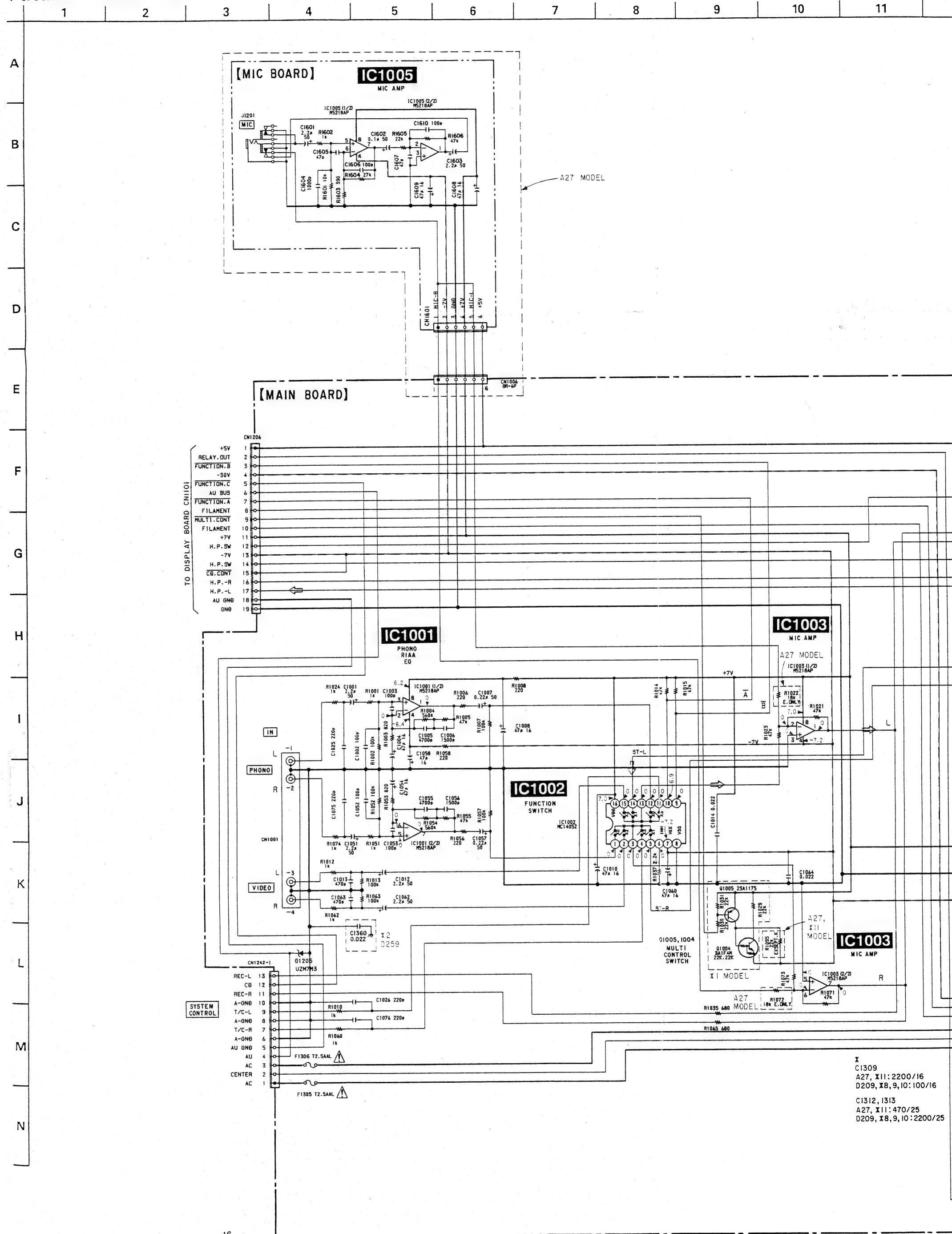
AE2 : AEP (with in PHONO MODEL)

## 4-2. PRINTED WIRING BOARD — MAIN SECTION —





4-3. SCHEMATIC DIAGRAM — MAIN SECTION —

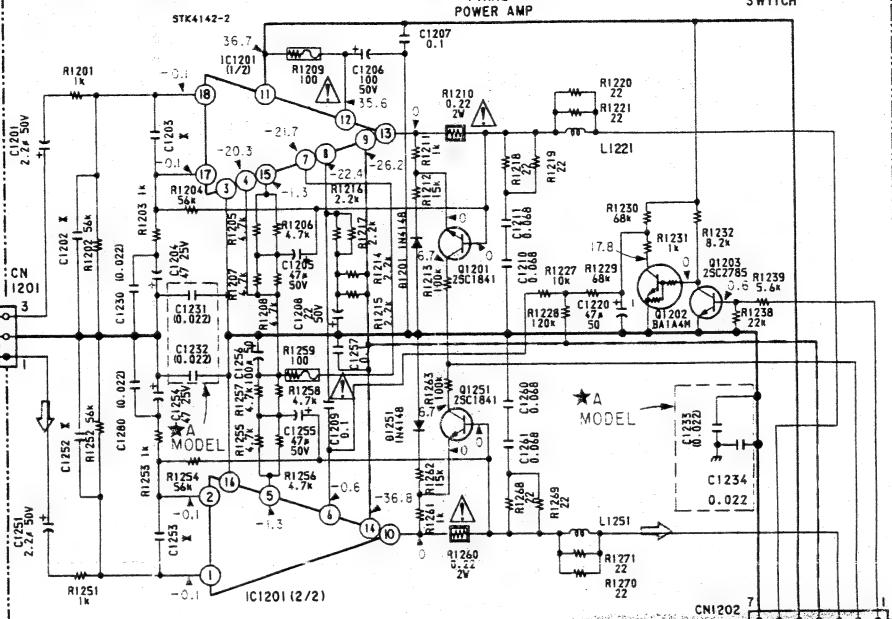


## [POWER AMPLIFIER BOARD]

[C1201]

Q1201, I251  
FINAL POWER AMP  
MUTEQ1202, I203  
STAND BY  
SWITCH

X C1202, I252  
EXCEPT ★A: 220p  
★A: 470p  
C1203, I253  
EXCEPT ★A: 220p  
★A: 680p

TO  
VR BOARD  
CN701

## [SURROUND BOARD]

J1202 (1/2)  
CN213  
J1202 G/2  
CN213  
J1202 G/2CN213  
SPEAKER  
CN213  
CN213CN213  
CN213  
CN213  
CN213

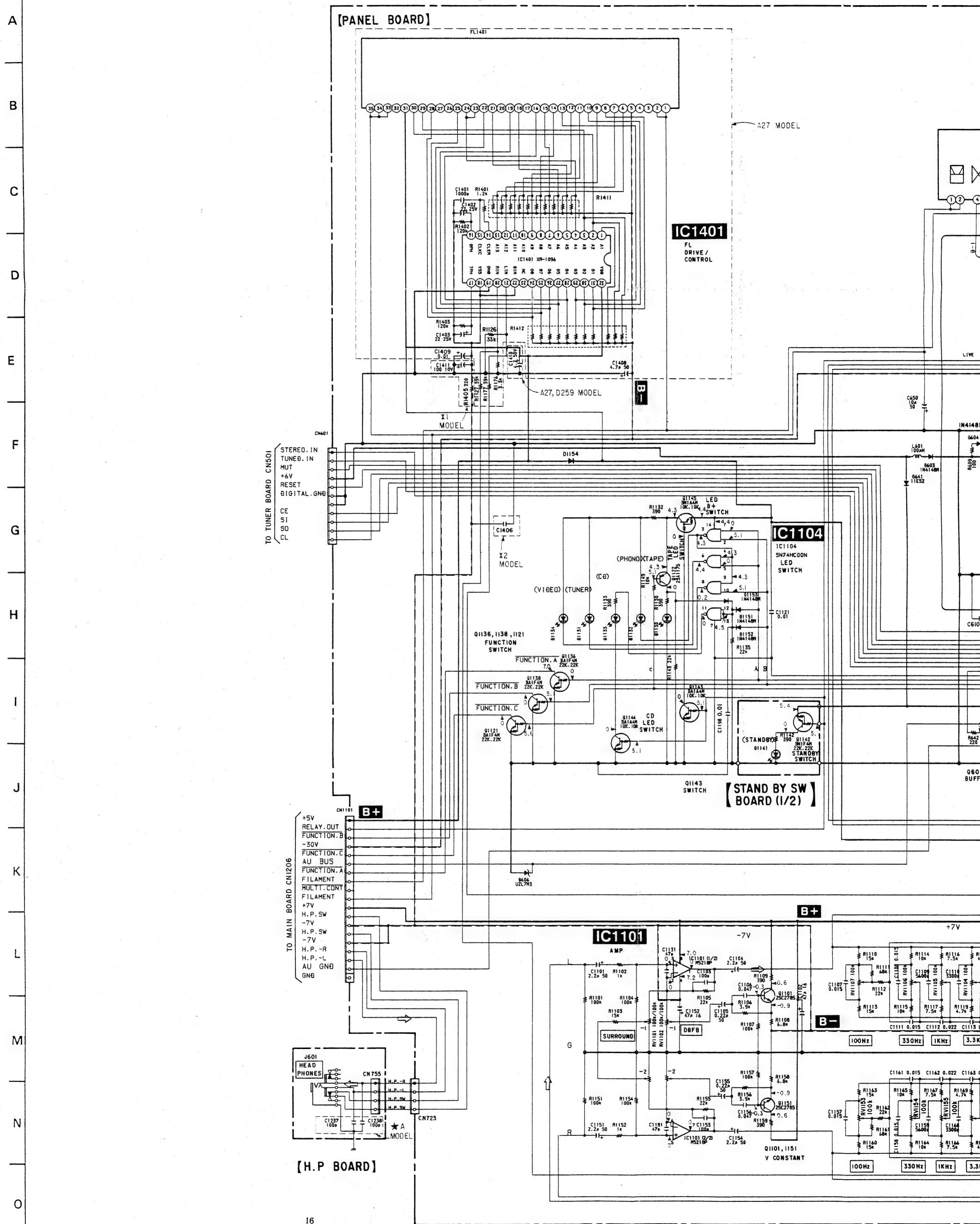
[C1202]

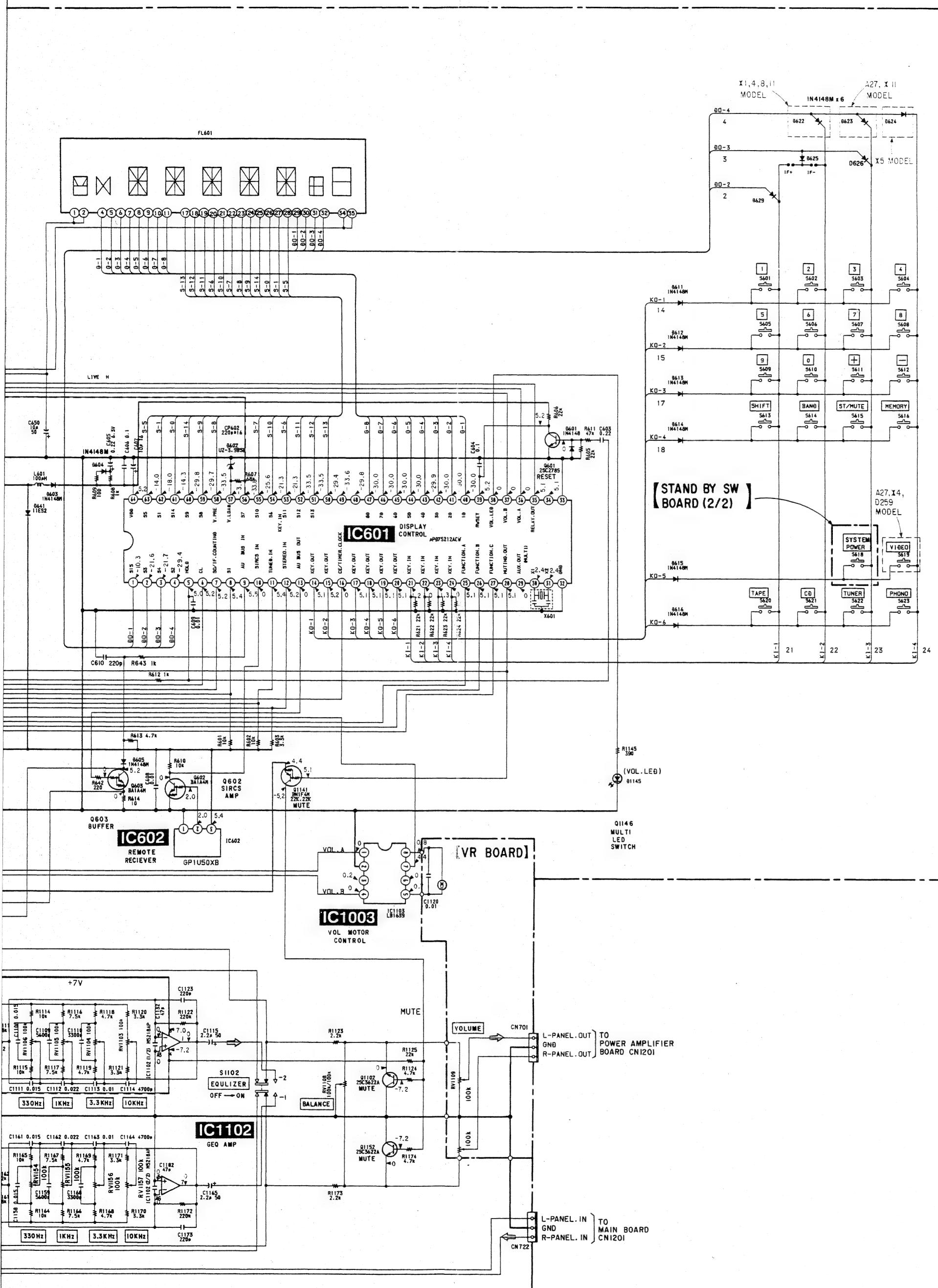
FINAL POWER AMP CONTROL

IC1202

#### 4-4. SCHEMATIC DIAGRAM — DISPLAY SECTION —

1                   2                   3                   4                   5                   6                   7                   8                   9                   10                   11





**Note on Schematic Diagram :**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4$  W or less unless otherwise specified.
-  : nonflammable resistor.
-  : fusible resistor.

**Note:**  
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

-  : adjustment for repair.
-  : B + Line.
-  : B - Line.
- no mark : FM
- Voltages are taken with a VOM (input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  -  : FM
  -  : AM
- Model name and destination shown by \* 1 to \* 11.
  - \* 1 : A27 : Australian
  - \* 2 : A27 : E, AU2
  - \* 3 : D209 : UK
  - \* 4 : D209 : Italian
  - \* 5 : D209 : East European
  - \* 6 : D209 : German
  - \* 7 : D209 : AEP, AE2
  - \* 8 : D259 : Italian
  - \* 9 : D259 : AEP, AE2
  - \* 10 : D259 : UK
  - \* 11 : D259 : Canadian
- $\star$ A : \* 4, 6, 8
- $\star$ B : \* 3, 5, 7, 9, 10
- $\star$ C : 209 : AEP, \* 3, 6, D259 : AEP, \* 10

AU2 : AUS (with in PHONO MODEL)  
AE2 : AEP (with in PHONO MODEL)

A

B

C

D

E

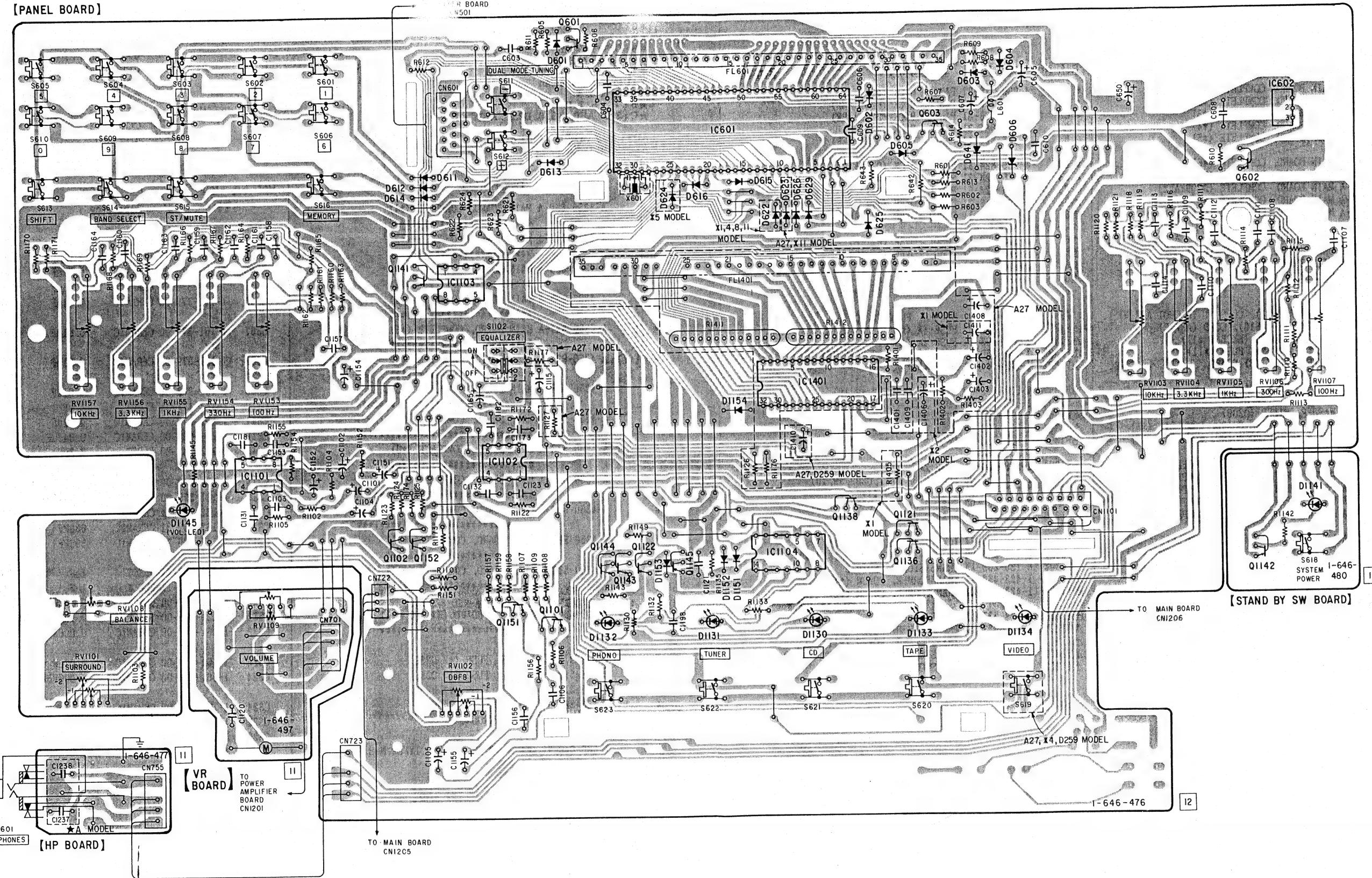
1

6

1

1

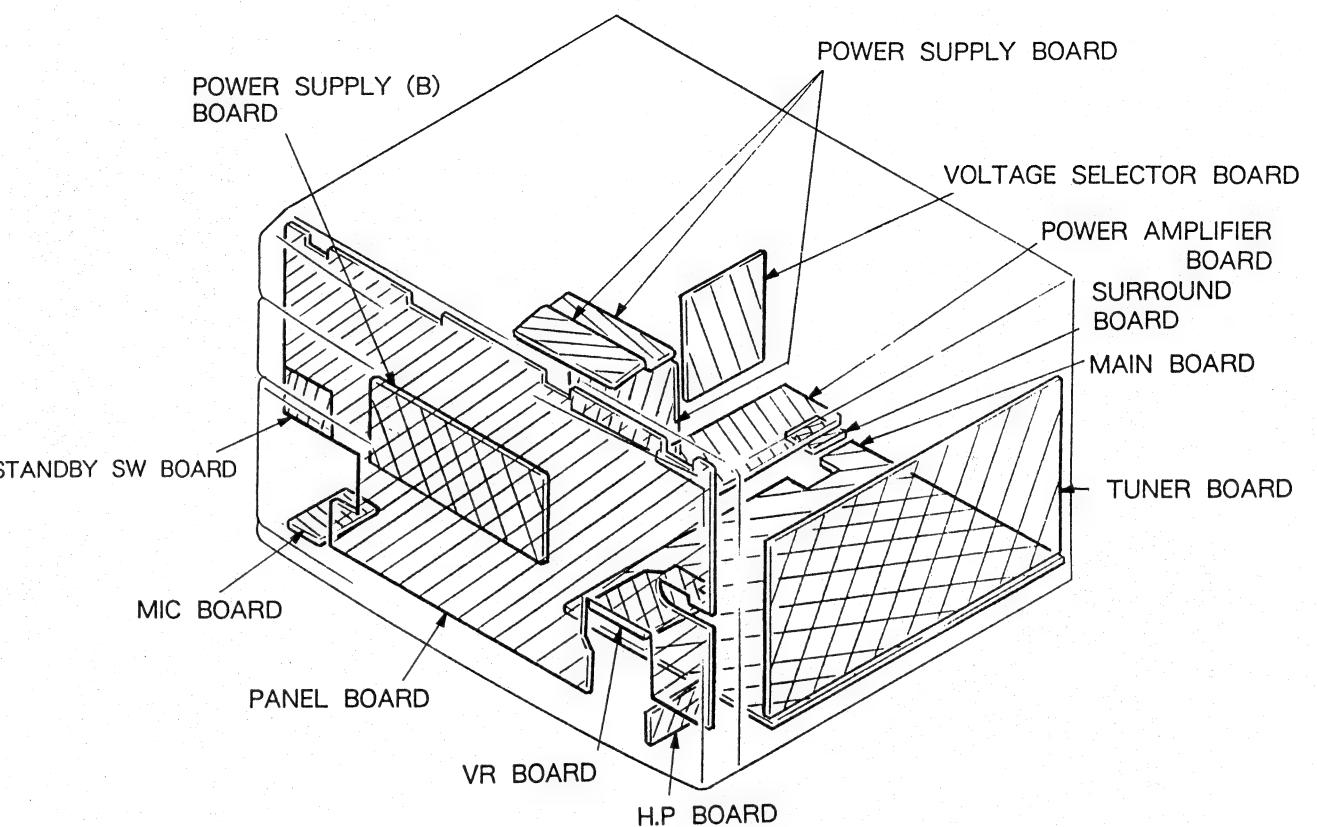
**[PANEL BOARD]**



## ● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D601	B-6	D1153	G-7
D602	B-9	D1154	E-8
D603	B-10		
D604	B-11	IC601	B-8
D605	C-10	IC602	B-13
D606	B-11	IC1101	F-3
D611	C-5	IC1102	F-6
D612	C-5	IC1103	D-5
D613	C-6	IC1104	G-8
D614	C-5	IC1401	E-9
D615	C-8		
D616	C-8	Q601	A-6
D622	C-8	Q602	C-13
D623	C-9	Q603	B-10
D624	C-8	Q1101	G-6
D625	C-9	Q1102	G-5
D626	C-9	Q1121	F-10
D629	C-9	Q1122	F-7
D641	C-10	Q1136	G-10
D1130	G-9	Q1138	F-9
D1131	G-8	Q1141	D-5
D1132	G-7	Q1142	G-13
D1133	G-10	Q1143	G-7
D1134	G-11	Q1144	F-7
D1141	F-14	Q1145	G-8
D1145	F-3	Q1151	G-6
D1151	G-8	Q1152	G-5
D1152	G-8		

## 4-6. CIRCUIT BOARDS LOCATION



## Note on Mounting Diagram :

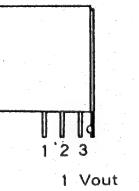
- : Parts extracted from the component side.
- : Pattern on the side which is seen.

- Model name and destination shown by \* 1 to \* 11.
- \* 1 : A27 : Australian
- \* 2 : A27 : E, AU2
- \* 3 : D209 : UK
- \* 4 : D209 : Italian
- \* 5 : D209 : East European
- \* 6 : D209 : German
- \* 7 : D209 : AEP, AE2
- \* 8 : D259 : Italian
- \* 9 : D259 : AEP, AE2
- \* 10 : D259 : UK
- \* 11 : D259 : Canadian
- ★ A : \* 4, 6, 8
- ★ B : \* 3, 5, 7, 9, 10
- ★ C : 209 : AEP, \* 3, 6, D259 : AEP, \* 10

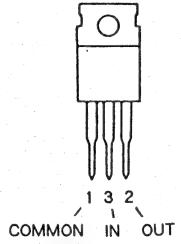
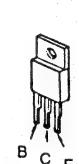
AU2 : AUS (with in PHONO MODEL)  
AE2 : AEP (with in PHONO MODEL)

## 4-7. SEMICONDUCTOR LEAD LAYOUTS

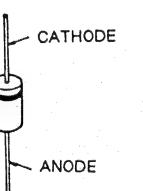
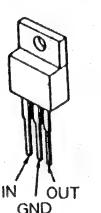
GP1U50XB



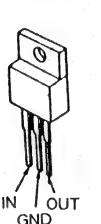
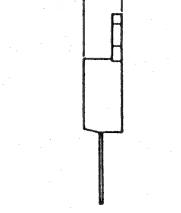
M5F79M07

DTA114ES  
DTC114ES  
DTC124ES  
2SC2603-EF  
2SC2669-0Y  
2SC3622A-LK2SA473  
2SD2012H2S7B3L  
UZL-12M3  
UZL-33L  
UZL-5.8B  
UZ-3.9BSB  
11ES2

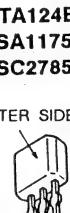
1N4148M

M5F7805  
M5F7807L  
M5F7812L

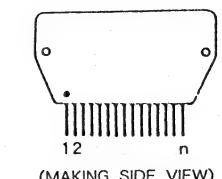
L78MR06

DTA124ES  
2SA1175-HFE  
2SC2785-HFE

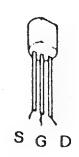
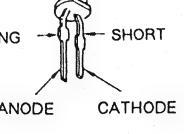
ETTER SIDE



STK-4142MK2



2SK246-GR3

SEL2210S-CD  
SEL3210S-CD

## SECTION 5 EXPLODED VIEWS

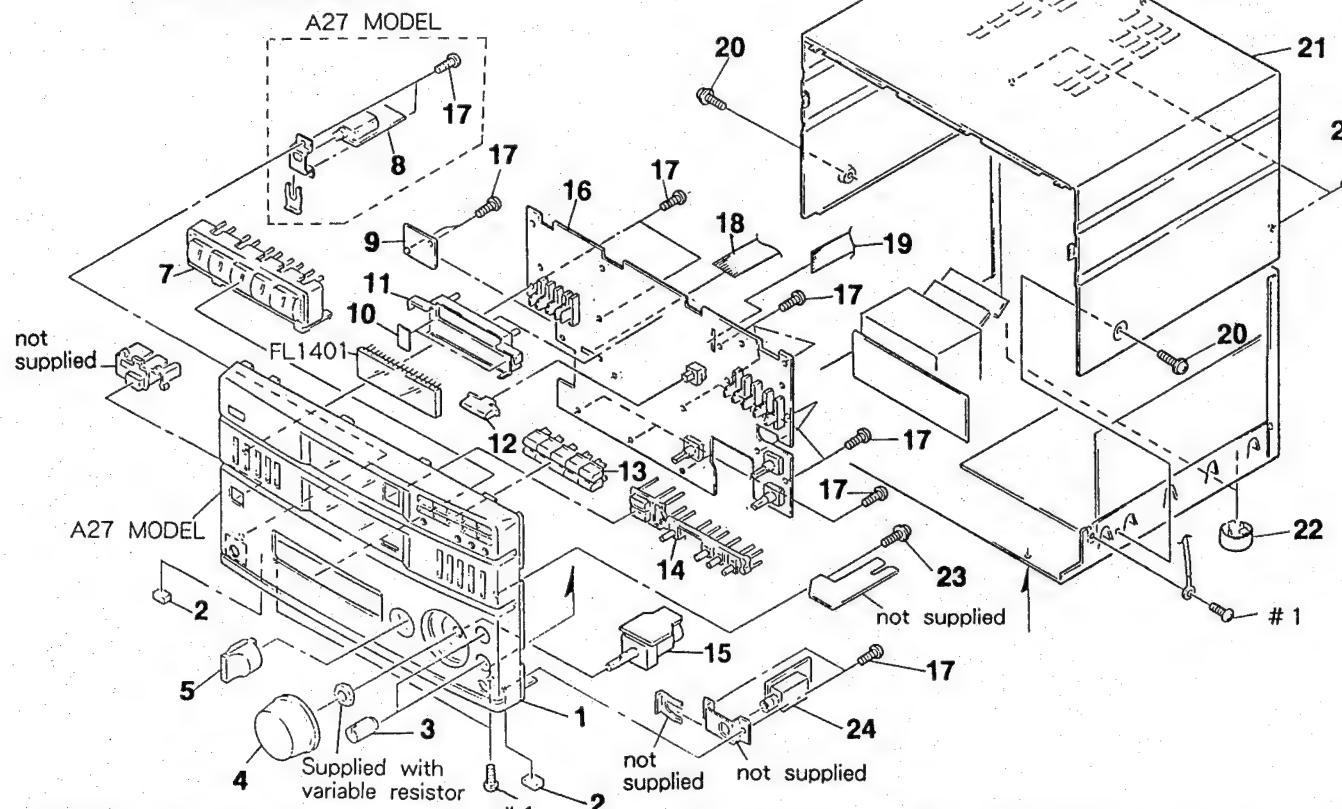
### NOTE:

- - XX, - X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example:  
KNOB, BALANCE (WHITE)...(RED)  
↑      ↑  
Parts color   Cabinet's color

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

- Model name and destination shown by \*1 to \*11.  
\*1 : A27 : Australian  
\*2 : A27 : E, AU2  
\*3 : D209 : UK  
\*4 : D209 : Italian  
\*5 : D209 : East European  
\*6 : D209 : German  
\*7 : D209 : AEP, AE2  
\*8 : D259 : Italian  
\*9 : D259 : AEP, AE2  
\*10 : D259 : UK  
\*11 : D259 : Canadian  
★A : \*4, 6, 8  
★B : \*3, 5, 7, 9, 10  
★C : 209 : AEP, \*3, 6, D259 : AEP, \*10

### 5-1. FRONT PANEL SECTION



MAIN SURROUND

SECTION 6  
ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description	Remarks
* 51	A-4356-650-A	MAIN BOARD, COMPLETE (*1)	
* 51	A-4356-742-A	MAIN BOARD, COMPLETE (*2)	
* 51	A-4356-630-A	MAIN BOARD, COMPLETE (*3)	
* 51	A-4356-933-A	MAIN BOARD, COMPLETE (*4)	
* 51	A-4360-821-A	MAIN BOARD, COMPLETE (*5)	
* 51	A-4356-926-A	MAIN BOARD, COMPLETE (*6)	
* 51	A-4356-618-A	MAIN BOARD, COMPLETE (D209:AEP)	
* 51	A-4356-928-A	MAIN BOARD, COMPLETE (D209:AE2)	
* 51	A-4360-543-A	MAIN BOARD, COMPLETE (*8)	
* 51	A-4360-534-A	MAIN BOARD, COMPLETE (D259:AEP)	
* 51	A-4360-538-A	MAIN BOARD, COMPLETE (D259:AE2)	
* 51	A-4360-523-A	MAIN BOARD, COMPLETE (*10)	
* 51	A-4360-511-A	MAIN BOARD, COMPLETE (*11)	
* 52	4-954-051-51	HOLDER, PC BOARD	
* 53	4-942-204-01	PLATE, GROUND	
* 54	3-703-244-00	BUSHING (2104), CORD (EXCEPT A27:E)	
* 54	3-703-571-11	BUSHING (S) (4516), CORD (A27:E)	
* 55	1-646-484-11	SURROUND BOARD (EXCEPT *11)	
* 56	3-701-946-26	LABEL (4A125V), FUSE (*11)	
* 57	1-646-478-11	POWER SUPPLY (B) BOARD	
* 58	1-646-474-11	POWER SUPPLY BOARD	
59	3-330-034-01	WASHER (*2, D259)	
59	3-564-542-00	WASHER, FIBER (D209)	
* 60	A-4356-649-A	POWER AMPLIFIER BOARD, COMPLETE (*1)	
* 60	A-4356-749-A	POWER AMPLIFIER BOARD, COMPLETE (*2)	
* 60	A-4356-628-A	POWER AMPLIFIER BOARD, COMPLETE (*3)	
* 60	A-4356-935-A	POWER AMPLIFIER BOARD, COMPLETE (*4, 6)	
* 60	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE (*5, 7)	
* 60	A-4360-546-A	POWER AMPLIFIER BOARD, COMPLETE (*8)	
* 60	A-4360-537-A	POWER AMPLIFIER BOARD, COMPLETE (*9)	
* 60	A-4360-527-A	POWER AMPLIFIER BOARD, COMPLETE (*10)	
* 60	A-4360-516-A	POWER AMPLIFIER BOARD, COMPLETE (*11)	
61	4-928-635-11	SCREW, +BV (2.6X16) TAPPING	
* 62	4-949-235-01	HOOK (*2, 4, 5, 6, 7, 9, 11)	
* 63	4-955-781-11	PANEL, BACK (*1)	
* 63	4-955-824-91	PANEL, BACK (A27:E)	
* 63	4-955-824-61	PANEL, BACK (A27:AU2)	
* 63	4-955-778-21	PANEL, BACK (*3)	
* 63	4-955-778-31	PANEL, BACK (*4)	
* 63	4-955-778-41	PANEL, BACK (*5)	

**Note:**  
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Model name and destination shown by \* 1 to \* 11.
- \* 1 : A27 : Australian
- \* 2 : A27 : E, AU2
- \* 3 : D209 : UK
- \* 4 : D209 : Italian
- \* 5 : D209 : East European
- \* 6 : D209 : German
- \* 7 : D209 : AEP, AE2
- \* 8 : D259 : Italian
- \* 9 : D259 : AEP, AE2
- \* 10 : D259 : UK
- \* 11 : D259 : Canadian
- ★ A : \* 4, 6, 8
- ★ B : \* 3, 5, 7, 9, 10
- ★ C : 209 : AEP, \* 3, 6, D259 : AEP, \* 10

AU2 : AUS (with in PHONO MODEL)  
AE2 : AEP (with in PHONO MODEL)

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- XX, - X mean standardized parts, so they may have some difference from the original one.

• RESISTORS

All resistors are in ohms.  
METAL : metal-film resistor

METAL OXIDE : Metal Oxide-film resistor

F : nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• SEMICONDUCTORS

In each case, u :  $\mu$ , for example:  
uA... :  $\mu$ A...,  $\mu$ PA...,  $\mu$ PA...,  
 $\mu$ PB...,  $\mu$ PB...,  $\mu$ PC...,  $\mu$ PC...,

• CAPACITORS

$\mu$ F :  $\mu$ F

• COILS

$\mu$ H :  $\mu$ H

Ref. No. Part No. Description

Remarks

Ref. No. Part No. Description

Remarks

< CAPACITOR >			
C301	1-161-379-00	CERAMIC	0.01uF 20% 25V (★:A)
C302	1-124-477-11	ELECT	47uF 20% 25V
C303	1-161-379-00	CERAMIC	0.01uF 20% 25V
C305	1-161-379-00	CERAMIC	0.01uF 20% 25V (★:A)
C306	1-161-379-00	CERAMIC	0.01uF 20% 25V (★:A)
C307	1-161-379-00	CERAMIC	0.01uF 20% 25V
C308	1-161-379-00	CERAMIC	0.01uF 20% 25V (EXCEPT *1)
C309	1-161-379-00	CERAMIC	0.01uF 20% 25V
C310	1-124-477-11	ELECT	47uF 20% 25V
C311	1-161-379-00	CERAMIC	0.01uF 20% 25V
C312	1-101-006-00	CERAMIC	0.047uF 50V
C313	1-123-382-00	ELECT	3.3uF 20% 100V
C314	1-161-379-00	CERAMIC	0.01uF 20% 25V
C315	1-161-329-00	CERAMIC	0.0068uF 30% 16V
C316	1-162-282-31	CERAMIC	100PF 10% 50V
C317	1-162-292-31	CERAMIC	680PF 10% 50V (*4, 6)
C317	1-162-289-31	CERAMIC	390PF 10% 50V (*8)
C318	1-124-903-11	ELECT	1uF 20% 50V
C320	1-124-903-11	ELECT	1uF 20% 50V
C321	1-124-902-00	ELECT	0.47uF 20% 50V
C322	1-124-463-00	ELECT	0.1uF 20% 50V
C323	1-161-329-00	CERAMIC	0.0068uF 20% 16V (EXCEPT *11)
C323	1-161-379-00	CERAMIC	0.01uF 20% 25V (*11)
C324	1-161-329-00	CERAMIC	0.0068uF 20% 16V (EXCEPT *11)
C324	1-161-379-00	CERAMIC	0.01uF 20% 25V (*11)
C325	1-124-477-11	ELECT	47uF 20% 25V
C326	1-124-907-11	ELECT	10uF 20% 50V
C327	1-161-379-00	CERAMIC	0.01uF 20% 25V
C328	1-124-463-00	ELECT	0.1uF 20% 50V

7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S (\*6)

**Note:**  
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

MAIN

SURROUND

Ref. No.	Part No.	Description	Remarks		Ref. No.	Part No.	Description	Remarks		
C329	1-124-927-11	ELECT	4.7uF	20%	100V	C1013	1-162-290-31	CERAMIC	470PF	10% 50V
C330	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1014	1-161-494-00	CERAMIC	0.022uF	25V
C331	1-126-176-11	ELECT	220uF	20%	10V	C1025	1-162-286-31	CERAMIC	220PF	10% 50V
C332	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1026	1-162-286-31	CERAMIC	220PF	10% 50V
C335	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1051	1-124-925-11	ELECT	2.2uF	20% 100V
C336	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1052	1-162-282-31	CERAMIC	100PF	10% 50V
C339	1-162-210-31	CERAMIC	30PF	5%	50V (★:B)	C1053	1-162-282-31	CERAMIC	100PF	10% 50V
C341	1-123-382-00	ELECT	3.3uF	20%	100V	C1054	1-124-477-11	ELECT	47uF	20% 25V
C342	1-123-382-00	ELECT	3.3uF	20%	100V	C1055	1-161-377-00	CERAMIC	0.0047uF	20% 16V
C343	1-123-382-00	ELECT	3.3uF	20%	100V	C1056	1-161-374-11	CERAMIC	0.0015uF	20% 50V
C344	1-123-382-00	ELECT	3.3uF	20%	100V	C1057	1-124-464-11	ELECT	0.22uF	20% 50V
C345	1-161-375-00	CERAMIC	0.0022uF	20%	50V	C1058	1-124-477-11	ELECT	47uF	20% 25V
C346	1-161-375-00	CERAMIC	0.0022uF	20%	50V	C1060	1-124-477-11	ELECT	47uF	20% 25V
C351	1-161-494-00	CERAMIC	0.022uF		25V (★:B)	C1062	1-124-925-11	ELECT	2.2uF	20% 100V
C352	1-102-120-00	CERAMIC	0.0018uF	10%	50V (★:B)	C1063	1-162-290-31	CERAMIC	470PF	10% 50V
C353	1-161-374-11	CERAMIC	0.0015uF	20%	50V (★:B)	C1064	1-161-494-00	CERAMIC	0.022uF	25V
C354	1-161-494-00	CERAMIC	0.022uF		25V (★:B)	C1075	1-162-286-31	CERAMIC	220PF	10% 50V
C361	1-164-098-11	CERAMIC	0.047uF		12V	C1076	1-162-286-31	CERAMIC	220PF	10% 50V
C361	1-161-379-00	CERAMIC	0.01uF	20%	25V (*4, 6)	C1212	1-124-916-11	ELECT	22uF	20% 63V
C362	1-161-494-00	CERAMIC	0.022uF		25V	C1213	1-124-916-11	ELECT	22uF	20% 63V
C363	1-164-159-11	CERAMIC	0.1uF		50V (★:B)	C1221	1-126-101-11	ELECT	100uF	20% 16V
C364	1-161-494-00	CERAMIC	0.022uF		25V (★:B)	C1222	1-126-176-11	ELECT	220uF	20% 10V
C371	1-162-198-31	CERAMIC	8.2PF	10%	50V (EXCEPT ★:B)	C1223	1-126-176-11	ELECT	220uF	20% 10V
C371	1-162-196-31	CERAMIC	5.6PF	10%	50V (★:B)	C1245	1-101-006-00	CERAMIC	0.047uF	50V (★:A)
C373	1-162-288-31	CERAMIC	330PF	10%	50V (*7, *8)	C1246	1-101-006-00	CERAMIC	0.047uF	50V (★:A)
C501	1-102-961-00	CERAMIC	27PF	5%	50V	C1247	1-101-006-00	CERAMIC	0.047uF	50V (★:A)
C502	1-102-961-00	CERAMIC	27PF	5%	50V	C1248	1-101-006-00	CERAMIC	0.047uF	50V (★:A)
C503	1-124-477-11	ELECT	47uF	20%	25V	C1249	1-161-494-00	CERAMIC	0.022uF	25V (★:A)
C504	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1250	1-161-494-00	CERAMIC	0.022uF	25V (★:A)
C505	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1262	1-124-916-11	ELECT	22uF	20% 63V
C506	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1263	1-124-916-11	ELECT	22uF	20% 63V
C507	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1294	1-161-494-00	CERAMIC	0.022uF	25V (★:A)
C521	1-124-925-11	ELECT	2.2uF	20%	100V	C1302	1-102-394-11	CERAMIC	0.01uF	250V
C522	1-124-463-00	ELECT	0.1uF	20%	50V	C1304	1-126-224-11	ELECT	4700uF	20% 42V
C523	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1305	1-126-224-11	ELECT	4700uF	20% 42V
C524	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1306	1-124-477-11	ELECT	47uF	20% 25V
C525	1-124-477-11	ELECT	47uF	20%	25V (EXCEPT *5)	C1307	1-124-893-11	ELECT	2200uF	20% 10V
C525	1-126-101-11	ELECT	100uF	20%	16V (*5)	C1308	1-126-101-11	ELECT	100uF	20% 16V
C531	1-136-173-00	FILM	0.47uF	5%	50V (★:B)	C1309	1-124-556-11	ELECT	2200uF	20% 16V (A27, *11)
C532	1-161-494-00	CERAMIC	0.022uF		25V (★:B)	C1309	1-126-101-11	ELECT	100uF	20% 16V (D209, *8, 9, 10)
C533	1-124-463-00	ELECT	0.1uF	20%	50V (★:B)	C1312	1-124-564-11	ELECT	4700uF	20% 25V (A27, *11)
C1001	1-124-925-11	ELECT	2.2uF	20%	100V	C1312	1-124-563-11	ELECT	2200uF	20% 25V (D209, *8, 9, 10)
C1002	1-162-282-31	CERAMIC	100PF	10%	50V	C1312	1-124-563-11	ELECT	2200uF	20% 25V (D209, *8, 9, 10)
C1003	1-162-282-31	CERAMIC	100PF	10%	50V	C1313	1-124-564-11	ELECT	4700uF	20% 25V (A27, *11)
C1004	1-124-477-11	ELECT	47uF	20%	25V	C1313	1-124-563-11	ELECT	2200uF	20% 25V (D209, *8, 9, 10)
C1005	1-161-377-00	CERAMIC	0.0047uF	20%	16V	C1319	1-124-463-00	ELECT	0.1uF	20% 50V
C1006	1-161-374-11	CERAMIC	0.0015uF	20%	50V	C1320	1-124-907-11	ELECT	10uF	20% 50V
C1007	1-124-464-11	ELECT	0.22uF	20%	50V	C1321	1-161-379-00	CERAMIC	0.01uF	20% 25V
C1008	1-124-477-11	ELECT	47uF	20%	25V					
C1010	1-124-477-11	ELECT	47uF	20%	25V					
C1012	1-124-925-11	ELECT	2.2uF	20%	100V					

**MAIN** **SURROUND**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>		
C1322	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1324	1-124-907-11	ELECT	10uF	20%	50V
C1326	1-124-907-11	ELECT	10uF	20%	50V
C1328	1-124-907-11	ELECT	10uF	20%	50V
C1330	1-126-101-11	ELECT	100uF	20%	16V
C1331	1-102-394-11	CERAMIC	0.01uF		250V
C1335	1-124-907-11	ELECT	10uF	20%	50V (★:C)
C1336	1-126-101-11	ELECT	100uF	20%	16V (★:C)
C1341	1-124-907-11	ELECT	10uF	20%	50V
C1346	1-124-925-11	ELECT	2.2uF	20%	100V
C1351	1-124-122-11	ELECT	100uF	20%	50V
C1352	1-126-105-11	ELECT	1000uF	20%	35V
C1353	1-136-165-00	FILM	0.1uF	5%	50V
C1354	1-136-165-00	FILM	0.1uF	5%	50V
C1360	1-161-494-00	CERAMIC	0.022uF		25V (#2, D259)
C1361	1-124-122-11	ELECT	100uF	20%	50V

< FILTER >

CF301	1-577-070-81	FILTER, CERAMIC (EXCEPT ★:A)
CF301	1-567-389-11	FILTER, CERAMIC (★:A)
CF303	1-577-070-81	FILTER, CERAMIC (EXCEPT ★:A)
CF303	1-567-389-11	FILTER, CERAMIC (★:A)
CF304	1-577-075-11	OSCILLATOR, CERAMIC

< CONNECTOR >

* CN212	1-564-506-11	PLUG, CONNECTOR 3P
CN302	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P
* CN501	1-568-830-11	SOCKET, CONNECTOR 11P
* CN1001	1-580-912-21	JACK, PIN 4P (IN) (#2, D259)
* CN1001	1-580-912-11	JACK, PIN 4P (IN) (#1, D209)
* CN1006	1-568-955-11	PIN, CONNECTOR 6P (A27)
CN1201	1-537-494-11	TERMINAL BOARD (SPEAKER) (EXCEPT #4, 8)
CN1201	1-537-481-11	TERMINAL BOARD (SPEAKER) (#4, 8)
* CN1203	1-564-508-11	PLUG, CONNECTOR 5P
CN1205	1-506-468-11	PIN, CONNECTOR 3P
CN1206	1-568-802-11	SOCKET, CONNECTOR 19P
* CN1241	1-565-291-11	SOCKET, CONNECTOR 13P (SYSTEM CONTROL)
CN1243	1-695-094-11	SOCKET, CONNECTOR 11P
CN1244	1-506-469-11	PIN, CONNECTOR 4P (A27, #9, 10, 11)
* CN1301	1-566-210-11	PIN, CONNECTOR 3P (POWER SOURCE) (★:C)
CN1302	1-506-469-11	PIN, CONNECTOR 4P

< DIODE >

D351	8-719-987-63	DIODE	1N4148M (★:B)
D1202	8-719-987-63	DIODE	1N4148M
D1203	8-719-987-63	DIODE	1N4148M
D1204	8-719-987-63	DIODE	1N4148M
D1205	8-719-933-48	DIODE	HZS7B3L
D1302	8-719-312-09	DIODE	RBA-402
D1303	8-719-200-82	DIODE	11ES2

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	
D1304	8-719-200-82	DIODE	11ES2	
D1305	8-719-200-82	DIODE	11ES2	
D1306	8-719-200-82	DIODE	11ES2	

D1316	8-719-200-82	DIODE	11ES2
D1317	8-719-200-82	DIODE	11ES2
D1318	8-719-200-82	DIODE	11ES2
D1319	8-719-200-82	DIODE	11ES2
D1321	8-719-987-63	DIODE	1N4148M

D1323	8-719-987-63	DIODE	1N4148M
D1324	8-719-987-63	DIODE	1N4148M
D1341	8-719-001-76	DIODE	UZL-12M3
D1347	8-719-987-63	DIODE	1N4148M
D1368	8-719-200-82	DIODE	11ES2
D1369	8-719-200-82	DIODE	11ES2

< FRONTEND >

FE301	1-465-006-11	FRONT END (FM) (2 GANG)	(#2, 3)
FE301	1-693-090-21	FRONT END (FM) (2 GANG)	(#1, 7, 9, 10, 11)
FE301	1-463-857-21	FRONT END	(★:A)
FE301	1-465-396-11	FRONT END (FM 3GANG)	(#5)
FE351	1-236-463-11	ENCAPSULATED COMPONENT	(★:B)
FE352	1-239-260-11	ENCAPSULATED COMPONENT	(EXCEPT ★:B)
FE352	1-239-261-12	ENCAPSULATED COMPONENT	(★:B)

< IC >

IC301	8-759-821-45	IC	LA1851N
IC501	8-759-820-91	IC	LC7218
IC1001	8-759-634-51	IC	M5218AP
IC1002	8-759-000-48	IC	MC14052BCP
IC1003	8-759-634-51	IC	M5218AP
IC1202	8-759-111-68	IC	uPC1237HA
IC1302	8-759-231-53	IC	M5F7805
IC1303	8-759-071-48	IC	M5F7807L
IC1304	8-759-604-95	IC	M5F79M07
IC1305	8-759-820-13	IC	L78MR06
IC1306	8-759-231-58	IC	M5F7812L (★:C)

< JACK >

* J1202	1-569-130-11	JACK, PIN 2P (SURROUND SPEAKER)
		(EXCEPT #11)

< IFT >

IFT301	1-404-713-11	TRANSFORMER, IF
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< COIL >

L301	1-410-686-11	INDUCTOR	1mH (A27, #11)
L301	1-407-500-00	INDUCTOR	4.7mH (D209, #8, 9, 10)
L351	1-410-525-11	INDUCTOR	220uH (★:B)
L1301	1-408-117-00	INDUCTOR	10uH (#6)
L1302	1-408-117-00	INDUCTOR	10uH (#6)

MAIN	SURROUND
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
< FILTER >							
LPF301	1-235-164-00	FILTER, LOW PASS		R307	1-249-414-11	CARBON	560 5% 1/4W F (★:A)
LPF302	1-235-164-00	FILTER, LOW PASS		R308	1-249-411-11	CARBON	330 5% 1/4W
< TRANSISTOR >							
Q301	8-729-230-99	TRANSISTOR 2SC2669-OY (★:A)		R309	1-249-432-11	CARBON	18K 5% 1/4W (EXCEPT *1)
Q302	8-729-230-99	TRANSISTOR 2SC2669-OY (★:A)		R310	1-249-411-11	CARBON	330 5% 1/4W
Q303	8-729-230-99	TRANSISTOR 2SC2669-OY (EXCEPT *1)		R311	1-249-434-11	CARBON	27K 5% 1/4W (EXCEPT *1)
Q304	8-729-230-99	TRANSISTOR 2SC2669-OY		R311	1-247-891-00	CARBON	330K 5% 1/4W (*1)
Q305	8-729-900-80	TRANSISTOR DTC114ES		R312	1-249-414-11	CARBON	560 5% 1/4W F (*2, 3, 5, 7, 9, 11)
Q306	8-729-900-61	TRANSISTOR DTA114ES		R312	1-249-416-11	CARBON	820 5% 1/4W F (★:A)
Q307	8-729-900-80	TRANSISTOR DTC114ES		R313	1-249-405-11	CARBON	100 5% 1/4W F
Q308	8-729-620-05	TRANSISTOR 2SC2603-EF (*2, D259)		R314	1-249-437-11	CARBON	47K 5% 1/4W (★:A)
Q308	8-729-119-78	TRANSISTOR 2SC2785-HFE (*1, D209)		R315	1-249-404-00	CARBON	82 5% 1/4W
Q309	8-729-620-05	TRANSISTOR 2SC2603-EF (*2, D259)		R315	1-249-435-11	CARBON	33K 5% 1/4W (★:A)
Q309	8-729-119-78	TRANSISTOR 2SC2785-HFE (*1, D209)		R316	1-249-429-11	CARBON	10K 5% 1/4W
Q351	8-729-900-80	TRANSISTOR DTC114ES (★:B)		R317	1-249-417-11	CARBON	1K 5% 1/4W F
Q352	8-729-119-78	TRANSISTOR 2SC2785-HFE (*3, 5, 7)		R318	1-249-435-11	CARBON	33K 5% 1/4W
Q352	8-729-620-05	TRANSISTOR 2SC2603-EF (*9, 10)		R319	1-249-428-11	CARBON	8.2K 5% 1/4W F
Q353	8-729-119-76	TRANSISTOR 2SA1175-HFE (★:B)		R320	1-249-432-11	CARBON	18K 5% 1/4W
Q354	8-729-900-80	TRANSISTOR DTC114ES (★:B)		R321	1-249-423-11	CARBON	3.3K 5% 1/4W F
Q355	8-729-900-80	TRANSISTOR DTC114ES (★:B)		R322	1-249-429-11	CARBON	10K 5% 1/4W
Q356	8-729-900-80	TRANSISTOR DTC114ES (★:B)		R323	1-249-418-11	CARBON	1.2K 5% 1/4W F (EXCEPT ★:A)
Q501	8-729-900-80	TRANSISTOR DTC114ES		R323	1-249-423-11	CARBON	3.3K 5% 1/4W F (*4, 6)
Q502	8-729-900-61	TRANSISTOR DTA114ES		R323	1-249-417-11	CARBON	1K 5% 1/4W F (*8)
Q521	8-729-202-67	TRANSISTOR 2SK246-GR3		R324	1-249-429-11	CARBON	10K 5% 1/4W
Q522	8-729-201-84	TRANSISTOR 2SC3112-B (A27, *11)		R325	1-249-429-11	CARBON	10K 5% 1/4W
Q522	8-729-141-26	TRANSISTOR 2SC3622A-LK (D209, *8, 9, 10)		R326	1-249-409-11	CARBON	220 5% 1/4W F
Q531	8-729-202-67	TRANSISTOR 2SK246-GR3 (★:B)		R327	1-249-437-11	CARBON	47K 5% 1/4W
Q532	8-729-141-26	TRANSISTOR 2SC3622A-LK (★:B)		R328	1-249-437-11	CARBON	47K 5% 1/4W
Q1004	8-729-900-36	TRANSISTOR DTC124ES (*1)		R331	1-247-899-11	CARBON	680K 5% 1/4W
Q1005	8-729-119-76	TRANSISTOR 2SA1175-HFE (*1)		R332	1-247-899-11	CARBON	680K 5% 1/4W
Q1204	8-729-900-63	TRANSISTOR DTA124ES		R333	1-249-421-11	CARBON	2.2K 5% 1/4W F
Q1302	8-729-209-15	TRANSISTOR 2SD2012		R334	1-249-421-11	CARBON	2.2K 5% 1/4W F
Q1304	8-729-620-05	TRANSISTOR 2SC2603-EF (*2, D259)		R335	1-249-420-11	CARBON	1.8K 5% 1/4W F
Q1304	8-729-119-78	TRANSISTOR 2SC2785-HFE (*1, D209)		R336	1-249-420-11	CARBON	1.8K 5% 1/4W F
Q1305	8-729-620-05	TRANSISTOR 2SC2603-EF (*2, D259)		R337	1-249-426-11	CARBON	5.6K 5% 1/4W
Q1305	8-729-119-78	TRANSISTOR 2SC2785-HFE (*1, D209)		R338	1-249-426-11	CARBON	5.6K 5% 1/4W
< RESISTOR >							
R301	1-249-401-11	CARBON 47 5% 1/4W F		R351	1-249-433-11	CARBON	22K 5% 1/4W (★:B)
R302	1-249-409-11	CARBON 220 5% 1/4W F (*1)		R352	1-249-437-11	CARBON	47K 5% 1/4W (★:B)
R302	1-249-413-11	CARBON 470 5% 1/4W F (*2, 3, 5)		R353	1-247-903-00	CARBON	1M 5% 1/4W (★:B)
R302	1-249-407-11	CARBON 150 5% 1/4W F (*7, 9, 10, 11)		R354	1-249-441-11	CARBON	100K 5% 1/4W (★:B)
R302	1-249-405-11	CARBON 100 5% 1/4W F (★:A)		R355	1-249-433-11	CARBON	22K 5% 1/4W (★:B)
R303	1-249-411-11	CARBON 330 5% 1/4W F (★:A)		R356	1-249-421-11	CARBON	2.2K 5% 1/4W F (★:B)
R304	1-249-432-11	CARBON 18K 5% 1/4W F (★:A)		R361	1-249-437-11	CARBON	47K 5% 1/4W
R305	1-249-411-11	CARBON 330 5% 1/4W F (★:A)		R362	1-249-437-11	CARBON	47K 5% 1/4W
R306	1-249-434-11	CARBON 27K 5% 1/4W F (★:A)		R363	1-249-425-11	CARBON	4.7K 5% 1/4W F (★:B)
				R364	1-249-425-11	CARBON	4.7K 5% 1/4W F (★:B)
				R365	1-249-429-11	CARBON	10K 5% 1/4W (D209, *8, 9, 10)
				R366	1-249-413-11	CARBON	470 5% 1/4W F (★:B)
				R367	1-249-434-11	CARBON	27K 5% 1/4W (★:B)
				R368	1-249-433-11	CARBON	22K 5% 1/4W (★:B)
				R370	1-249-423-11	CARBON	3.3K 5% 1/4W F (★:A)

**MAIN SURROUND**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>			<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>				
R501	1-249-417-11	CARBON	1K	5%	1/4W	F	R1023	1-249-437-11	CARBON	47K	5%	1/4W	
R502	1-249-417-11	CARBON	1K	5%	1/4W	F	R1024	1-249-417-11	CARBON	1K	5%	1/4W	F
R503	1-249-417-11	CARBON	1K	5%	1/4W	F	R1029	1-249-433-11	CARBON	22K	5%	1/4W	(*)
R504	1-249-417-11	CARBON	1K	5%	1/4W	F	R1030	1-249-433-11	CARBON	22K	5%	1/4W	(*)
R505	1-249-429-11	CARBON	10K	5%	1/4W		R1031	1-249-433-11	CARBON	22K	5%	1/4W	(*)
R506	1-249-417-11	CARBON	1K	5%	1/4W	F	R1035	1-249-415-11	CARBON	680	5%	1/4W	F
R510	1-249-401-11	CARBON	47	5%	1/4W	F	R1037	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R511	1-249-429-11	CARBON	10K	5%	1/4W		R1051	1-249-417-11	CARBON	1K	5%	1/4W	F
R512	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R1052	1-249-441-11	CARBON	100K	5%	1/4W	
R513	1-249-417-11	CARBON	1K	5%	1/4W	F	R1053	1-249-416-11	CARBON	820	5%	1/4W	F
R514	1-249-429-11	CARBON	10K	5%	1/4W		R1054	1-247-897-11	CARBON	560K	5%	1/4W	
R515	1-249-417-11	CARBON	1K	5%	1/4W	F	R1055	1-249-437-11	CARBON	47K	5%	1/4W	
R521	1-249-423-11	CARBON	3.3K	5%	1/4W	F	R1056	1-249-409-11	CARBON	220	5%	1/4W	F
R522	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R1057	1-249-441-11	CARBON	100K	5%	1/4W	
R523	1-249-414-11	CARBON	560	5%	1/4W	F	R1058	1-249-409-11	CARBON	220	5%	1/4W	F
R524	1-249-417-11	CARBON	1K	5%	1/4W	F	R1060	1-249-417-11	CARBON	1K	5%	1/4W	F
R525	1-249-410-11	CARBON	270	5%	1/4W	F	R1062	1-249-417-11	CARBON	1K	5%	1/4W	F
R526	1-249-421-11	CARBON	2.2K	5%	1/4W	F	R1063	1-249-441-11	CARBON	100K	5%	1/4W	
R527	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R1065	1-249-415-11	CARBON	680	5%	1/4W	F
R528	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R1071	1-249-437-11	CARBON	47K	5%	1/4W	
R529	1-249-405-11	CARBON	100	5%	1/4W	F	R1072	1-249-432-11	CARBON	18K	5%	1/4W	(A27)
R530	1-249-405-11	CARBON	100	5%	1/4W	F	R1073	1-249-437-11	CARBON	47K	5%	1/4W	
R531	1-249-423-11	CARBON	3.3K	5%	1/4W	F (★:B)	R1074	1-249-417-11	CARBON	1K	5%	1/4W	F
R532	1-249-433-11	CARBON	22K	5%	1/4W	(★:B)	R1095	1-249-433-11	CARBON	22K	5%	1/4W	(A27, *11)
R533	1-249-414-11	CARBON	560	5%	1/4W	F (★:B)	R1222	1-249-415-11	CARBON	680	5%	1/4W	F
R534	1-249-417-11	CARBON	1K	5%	1/4W	F (★:B)	R1223	1-249-415-11	CARBON	680	5%	1/4W	F
R535	1-249-410-11	CARBON	270	5%	1/4W	F (★:B)	R1226	1-215-890-11	METAL OXIDE	470	5%	2W	F
R536	1-249-421-11	CARBON	2.2K	5%	1/4W	F (★:B)	R1233	1-249-433-11	CARBON	22K	5%	1/4W	
R537	1-249-425-11	CARBON	4.7K	5%	1/4W	F (★:B)	R1234	1-249-433-11	CARBON	22K	5%	1/4W	
R538	1-249-405-11	CARBON	100	5%	1/4W	F (★:B)	R1235	1-249-437-11	CARBON	47K	5%	1/4W	
R613	1-249-441-11	CARBON	100K	5%	1/4W	(*9, 10, 11)	R1236	1-249-441-11	CARBON	100K	5%	1/4W	
R631	1-249-441-11	CARBON	100K	5%	1/4W	(A27, D209, *8)	R1237	1-249-429-11	CARBON	10K	5%	1/4W	
R1001	1-249-417-11	CARBON	1K	5%	1/4W	F	R1240	1-249-438-11	CARBON	56K	5%	1/4W	
R1002	1-249-441-11	CARBON	100K	5%	1/4W		R1241	1-249-385-11	CARBON	2.2	5%	1/6W	F (★:A)
R1003	1-249-416-11	CARBON	820	5%	1/4W	F	R1242	1-249-385-11	CARBON	2.2	5%	1/6W	F (★:A)
R1004	1-247-897-11	CARBON	560K	5%	1/4W		R1243	1-249-385-11	CARBON	2.2	5%	1/6W	F (★:A)
R1005	1-249-437-11	CARBON	47K	5%	1/4W		R1244	1-249-385-11	CARBON	2.2	5%	1/6W	F (★:A)
R1006	1-249-409-11	CARBON	220	5%	1/4W	F	R1272	1-249-415-11	CARBON	680	5%	1/4W	F
R1007	1-249-441-11	CARBON	100K	5%	1/4W		R1273	1-249-415-11	CARBON	680	5%	1/4W	F
R1008	1-249-409-11	CARBON	220	5%	1/4W	F	R1290	1-249-437-11	CARBON	47K	5%	1/4W	
R1010	1-249-417-11	CARBON	1K	5%	1/4W	F	R1301	1-249-429-11	CARBON	10K	5%	1/4W	
R1012	1-249-417-11	CARBON	1K	5%	1/4W	F	R1302	1-249-429-11	CARBON	10K	5%	1/4W	
R1013	1-249-441-11	CARBON	100K	5%	1/4W		R1306	1-249-433-11	CARBON	22K	5%	1/4W	
R1014	1-249-437-11	CARBON	47K	5%	1/4W		R1309	1-249-433-11	CARBON	22K	5%	1/4W	
R1015	1-249-437-11	CARBON	47K	5%	1/4W		R1321	1-249-417-11	CARBON	1K	5%	1/4W	F
R1021	1-249-437-11	CARBON	47K	5%	1/4W		R1322	1-249-429-11	CARBON	10K	5%	1/4W	
R1022	1-249-432-11	CARBON	18K	5%	1/4W	(A27)	R1345	1-249-421-11	CARBON	2.2K	5%	1/4W	F
							R1346	1-249-425-11	CARBON	4.7K	5%	1/4W	F (★:C)
							R1347	1-249-417-11	CARBON	1K	5%	1/4W	F

PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR
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Ref. No.	Part No.	Description		Remarks	
C1155	1-124-464-11	ELECT	0.22uF	20%	50V
C1156	1-136-161-00	FILM	0.047uF	5%	50V
C1157	1-136-155-00	FILM	0.015uF	5%	50V
C1158	1-136-155-00	FILM	0.015uF	5%	50V
C1159	1-137-437-11	FILM	0.0056uF	5%	50V
C1160	1-161-327-00	CERAMIC	0.0033uF	20%	16V
C1161	1-136-155-00	FILM	0.015uF	5%	50V
C1162	1-136-157-00	FILM	0.022uF	5%	50V
C1163	1-136-153-00	FILM	0.01uF	5%	50V
C1164	1-161-377-00	CERAMIC	0.0047uF	20%	16V
C1165	1-124-257-00	ELECT	2.2uF	20%	50V
C1173	1-162-286-31	CERAMIC	220PF	10%	50V
C1181	1-162-215-31	CERAMIC	47PF	5%	50V
C1182	1-162-215-31	CERAMIC	47PF	5%	50V
C1198	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1237	1-162-282-31	CERAMIC	100PF	10%	50V (★:A)
C1238	1-162-282-31	CERAMIC	100PF	10%	50V (★:A)
C1401	1-162-294-31	CERAMIC	0.001uF	10%	50V (A27)
C1402	1-124-916-11	ELECT	22uF	20%	63V (A27)
C1403	1-124-916-11	ELECT	22uF	20%	63V (A27)
C1406	1-124-443-00	ELECT	100uF	20%	10V (*2)
C1408	1-126-163-11	ELECT	4.7uF	20%	50V (A27)
C1409	1-161-379-00	CERAMIC	0.01uF	20%	25V (A27)
C1410	1-126-163-11	ELECT	4.7uF	20%	50V (A27, D259)
C1411	1-124-443-00	ELECT	100uF	20%	10V (*1)
C1601	1-124-925-11	ELECT	2.2uF	20%	100V (A27)
C1602	1-124-463-00	ELECT	0.1uF	20%	50V (A27)
C1603	1-124-925-11	ELECT	2.2uF	20%	100V (A27)
C1604	1-162-294-31	CERAMIC	0.001uF	10%	50V (A27)
C1605	1-162-215-31	CERAMIC	47PF	5%	50V (A27)
C1606	1-162-282-31	CERAMIC	100PF	10%	50V (A27)
C1607	1-162-215-31	CERAMIC	47PF	5%	50V (A27)
C1608	1-124-589-11	ELECT	47uF	20%	16V (A27)
C1609	1-124-589-11	ELECT	47uF	20%	16V (A27)
C1610	1-162-282-31	CERAMIC	100PF	10%	50V (A27)

< CONNECTOR >

\* CN601 1-568-830-11 SOCKET, CONNECTOR 11P  
 CN1101 1-568-802-11 SOCKET, CONNECTOR 19P

< DIODE >

D601	8-719-987-63	DIODE	1N4148M
D602	8-719-010-26	DIODE	UZ-3.9BSB
D603	8-719-987-63	DIODE	1N4148M
D604	8-719-987-63	DIODE	1N4148M
D605	8-719-987-63	DIODE	1N4148M
D606	8-719-933-48	DIODE	HZS7B3L
D611	8-719-987-63	DIODE	1N4148M
D612	8-719-987-63	DIODE	1N4148M
D613	8-719-987-63	DIODE	1N4148M

Ref. No.	Part No.	Description	Remarks
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D614	8-719-987-63	DIODE	1N4148M
D615	8-719-987-63	DIODE	1N4148M
D616	8-719-987-63	DIODE	1N4148M
D622	8-719-987-63	DIODE	1N4148M (*1, 4, 8, 11)
D623	8-719-987-63	DIODE	1N4148M (A27, *11)
D624	8-719-987-63	DIODE	1N4148M (*5)
D625	8-719-987-63	DIODE	1N4148M
D626	8-719-987-63	DIODE	1N4148M
D629	8-719-987-63	DIODE	1N4148M
D641	8-719-200-82	DIODE	11ES2
D1130	8-719-301-37	LED	SEL2210S-CD
D1131	8-719-301-37	LED	SEL2210S-CD
D1132	8-719-301-37	LED	SEL2210S-CD
D1133	8-719-301-37	LED	SEL2210S-CD
D1134	8-719-301-37	LED	SEL2210S-CD
D1141	8-719-301-37	LED	SEL2210S-CD
D1145	8-719-313-69	DIODE	SEL3210S-CD
D1151	8-719-987-63	DIODE	1N4148M
D1152	8-719-987-63	DIODE	1N4148M
D1153	8-719-987-63	DIODE	1N4148M
D1154	8-719-987-63	DIODE	1N4148M

< FILTER >

FL601 1-519-732-11 INDICATOR TUBE, FLUORESCENT  
 FL1401 1-519-648-21 INDICATOR TUBE, FLUORESCENT (A27)

< IC >

IC601	8-759-096-99	IC	uPD75212ACW-A47
IC602	8-749-922-36	IC	GP1U50XB
IC1101	8-759-634-51	IC	M5218AP
IC1102	8-759-634-51	IC	M5218AP
IC1103	8-759-820-62	IC	LB1639
IC1104	8-759-916-12	IC	TC74HC00P
IC1401	8-759-065-87	IC	XR-1096 (A27)
IC1601	8-759-634-51	IC	M5218AP (A27)

< JACK >

J601 1-691-002-11 JACK, LARGE TYPE (HEADPHONES) (\*2)  
 J601 1-573-151-11 JACK, LARGE TYPE (HEADPHONES) (\*1)  
 \* J1201 1-691-003-11 JACK, LARGE TYPE (MIC)

< COIL >

L601 1-410-521-11 INDUCTOR 100uH

< TRANSISTOR >

Q601	8-729-620-05	TRANSISTOR	2SC2603-EF (*2, D259)
Q601	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)
Q602	8-729-900-80	TRANSISTOR	DTC114ES
Q603	8-729-900-80	TRANSISTOR	DTC114ES
Q1101	8-729-620-05	TRANSISTOR	2SC2603-EF (*2, D259)

MAIN	SURROUND	PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks				
< VARIABLE RESISTOR >											
RV301	1-238-601-11	RES, ADJ, CARBON 22K		*	1-646-478-11	POWER SUPPLY (B) BOARD	*****				
RV302	1-238-601-11	RES, ADJ, CARBON 22K		*	1-646-479-11	MIC BOARD (A27)	*****				
< RELAY >											
RY1201	1-515-533-11	RELAY		*	1-646-480-11	STAND-BY SW BOARD	*****				
RY1201	1-515-920-11	RELAY (24V) (D209, *8)		*	1-646-497-11	VR BOARD	*****				
< TRANSFORMER >											
T301	1-404-807-11	TRANSFORMER, DISCRIMINATOR		*	1-533-213-11	HOLDER, FUSE (*2, D259)					
T302	1-235-126-00	ENCAPSULATED COMPONENT (★:A)		*	1-533-213-31	HOLDER, FUSE (*2, D259)					
< TERMINAL >											
TM301	1-537-264-11	TERMINAL BOARD (ANTENNA) (A27, *3, 10, 11)		*	1-533-217-31	HOLDER, FUSE (D209)					
* TM301	1-537-288-11	TERMINAL BOARD, ANTENNA (PAL) (ANTENNA)	(*4, 5, 6, 7, 8, 9)	*	1-533-293-11	FUSE HOLDER (*2, D259)					
< TEST PIN >											
* TP1	1-560-060-00	PIN, CONNECTOR 2P		*	4-942-301-01	HOLDER, FL TUBE					
< VIBRATOR >											
XT501	1-577-126-21	VIBRATOR, CRYSTAL		*	4-949-935-31	CUSHION (FL) (*2, D259)					
XT501	1-579-383-11	VIBRATOR, CRYSTAL		< CAPACITOR >							
*****											
*	A-4356-640-A	PANEL BOARD, COMPLETE (*1)		C603	1-136-169-00	FILM	0.22uF	5%	50V		
	*****			C604	1-164-159-11	CERAMIC	0.1uF		50V		
*	A-4356-736-A	PANEL BOARD, COMPLETE (*2)		C605	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V		
	*****			C606	1-164-159-11	CERAMIC	0.1uF		50V		
*	A-4356-623-A	PANEL BOARD, COMPLETE (*3)		C607	1-124-907-11	ELECT	10uF	20%	50V		
	*****			C608	1-161-379-00	CERAMIC	0.01uF	20%	25V		
*	A-4356-930-A	PANEL BOARD, COMPLETE (*4)		C609	1-161-379-00	CERAMIC	0.01uF	20%	25V		
	*****			C610	1-162-286-31	CERAMIC	220PF	10%	50V		
*	A-4360-822-A	PANEL BOARD, COMPLETE (*5)		C650	1-124-907-11	ELECT	10uF	20%	50V		
	*****			C1101	1-124-257-00	ELECT	2.2uF	20%	50V		
*	A-4356-924-A	PANEL BOARD, COMPLETE (*6)		C1102	1-124-589-11	ELECT	47uF	20%	16V		
	*****			C1103	1-162-282-31	CERAMIC	100PF	10%	50V		
*	A-4356-608-A	PANEL BOARD, COMPLETE (*7)		C1104	1-124-257-00	ELECT	2.2uF	20%	50V		
	*****			C1105	1-124-464-11	ELECT	0.22uF	20%	50V		
*	A-4360-541-A	PANEL BOARD, COMPLETE (*8)		C1106	1-136-161-00	FILM	0.047uF	5%	50V		
	*****			C1107	1-136-155-00	FILM	0.015uF	5%	50V		
*	A-4360-531-A	PANEL BOARD, COMPLETE (*9)		C1108	1-136-155-00	FILM	0.015uF	5%	50V		
	*****			C1109	1-137-437-11	FILM	0.0056uF	5%	50V		
*	A-4360-520-A	PANEL BOARD, COMPLETE (*10)		C1110	1-161-327-00	CERAMIC	0.0033uF	20%	16V		
	*****			C1111	1-136-155-00	FILM	0.015uF	5%	50V		
*	1-646-477-11	H. P BOARD		C1112	1-136-157-00	FILM	0.022uF	5%	50V		
	*****			C1113	1-136-153-00	FILM	0.01uF	5%	50V		
*	A-4360-509-A	PANEL BOARD, COMPLETE (*11)		C1114	1-161-377-00	CERAMIC	0.0047uF	20%	16V		
	*****			C1115	1-124-257-00	ELECT	2.2uF	20%	50V		
*	*****			C1116	1-161-379-00	CERAMIC	0.01uF	20%	25V		
	*****			C1121	1-161-379-00	CERAMIC	0.01uF	20%	25V		
*	*****			C1123	1-162-286-31	CERAMIC	220PF	10%	50V		
*	*****			C1131	1-162-215-31	CERAMIC	47PF	5%	50V		
*	*****			C1132	1-162-215-31	CERAMIC	47PF	5%	50V		
*	*****			C1151	1-124-257-00	ELECT	2.2uF	20%	50V		
	*****			C1152	1-124-589-11	ELECT	47uF	20%	16V		
*	*****			C1153	1-162-282-31	CERAMIC	100PF	10%	50V		
*	*****			C1154	1-124-257-00	ELECT	2.2uF	20%	50V		

PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR	POWER AMPLIFIER
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Ref. No.	Part No.	Description			Remarks
R1411	1-239-054-11	COMPOSITION CIRCUIT BLOCK			(A27)
R1412	1-239-054-11	COMPOSITION CIRCUIT BLOCK			(A27)
R1601	1-249-429-11	CARBON	10K	5%	1/4W (A27)
R1602	1-249-417-11	CARBON	1K	5%	1/4W F (A27)
R1603	1-249-412-11	CARBON	390	5%	1/4W F (A27)
R1604	1-249-434-11	CARBON	27K	5%	1/4W (A27)
R1605	1-249-433-11	CARBON	22K	5%	1/4W (A27)
R1606	1-249-437-11	CARBON	47K	5%	1/4W (A27)
< VARIABLE RESISTOR >					
RV1101	1-223-251-11	RES, VAR, CARBON	100K/100K	(SURROUND)	
RV1102	1-223-251-11	RES, VAR, CARBON	100K/100K	(DBFB)	
RV1103	1-223-289-11	RES, VAR, SLIDE	100K	(100Hz)	
RV1104	1-223-289-11	RES, VAR, SLIDE	100K	(330Hz)	
RV1105	1-223-289-11	RES, VAR, SLIDE	100K	(1KHz)	
RV1106	1-223-289-11	RES, VAR, SLIDE	100K	(3.3KHz)	
RV1107	1-223-289-11	RES, VAR, SLIDE	100K	(10KHz)	
RV1108	1-223-253-11	RES, VAR, CARBON	100K/100K	(BALANCE)	
RV1109	1-223-291-11	RES, VAR, CARBON	100K/100K	(VOLUME)	
RV1153	1-223-289-11	RES, VAR, SLIDE	100K	(100Hz)	
RV1154	1-223-289-11	RES, VAR, SLIDE	100K	(330Hz)	
RV1155	1-223-289-11	RES, VAR, SLIDE	100K	(1KHz)	
RV1156	1-223-289-11	RES, VAR, SLIDE	100K	(3.3KHz)	
RV1157	1-223-289-11	RES, VAR, SLIDE	100K	(10KHz)	
< SWITCH >					
S601	1-554-303-21	SWITCH, TACTILE	(1)		
S602	1-554-303-21	SWITCH, TACTILE	(2)		
S603	1-554-303-21	SWITCH, TACTILE	(3)		
S604	1-554-303-21	SWITCH, TACTILE	(4)		
S605	1-554-303-21	SWITCH, TACTILE	(5)		
S606	1-554-303-21	SWITCH, TACTILE	(6)		
S607	1-554-303-21	SWITCH, TACTILE	(7)		
S608	1-554-303-21	SWITCH, TACTILE	(8)		
S609	1-554-303-21	SWITCH, TACTILE	(9)		
S610	1-554-303-21	SWITCH, TACTILE	(0)		
S611	1-554-303-21	SWITCH, TACTILE	(+)		
S612	1-554-303-21	SWITCH, TACTILE	(-)		
S613	1-554-303-21	SWITCH, TACTILE	(SHIFT)		
S614	1-554-303-21	SWITCH, TACTILE	(BAND SELECT)		
S615	1-554-303-21	SWITCH, TACTILE	(ST/MUTE)		
S616	1-554-303-21	SWITCH, TACTILE	(MEMORY)		
S618	1-554-303-21	SWITCH, TACTILE	(SYSTEM POWER)		
S619	1-554-303-21	SWITCH, TACTILE	(VIDEO)	(A27, *4, D259)	
S620	1-554-303-21	SWITCH, TACTILE	(TAPE)		
S621	1-554-303-21	SWITCH, TACTILE	(CD)		
S622	1-554-303-21	SWITCH, TACTILE	(TUNER)		
S623	1-554-303-21	SWITCH, TACTILE	(PHONO)		
S1102	1-571-305-11	SWITCH, PUSH	(EQUILIZER)	(1 KEY)	

Ref. No.	Part No.	Description			Remarks
		< VIBRATOR >			
X601	1-567-775-11	VIBRATOR, CERAMIC			
*****					
*	A-4356-649-A	POWER AMPLIFIER BOARD, COMPLETE	(*)	*****	
*	A-4356-749-A	POWER AMPLIFIER BOARD, COMPLETE	(*)	*****	
*	A-4356-628-A	POWER AMPLIFIER BOARD, COMPLETE	(*)	*****	
*	A-4356-935-A	POWER AMPLIFIER BOARD, COMPLETE	(*, 6)	*****	
*	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE	(*, 7)	*****	
*	A-4360-546-A	POWER AMPLIFIER BOARD, COMPLETE	(*)	*****	
*	A-4360-537-A	POWER AMPLIFIER BOARD, COMPLETE	(*)	*****	
*	A-4360-527-A	POWER AMPLIFIER BOARD, COMPLETE	(*)	*****	
*	A-4360-516-A	POWER AMPLIFIER BOARD, COMPLETE	(*)	*****	
< CAPACITOR >					
C1201	1-124-257-00	ELECT	2.2uF	20%	50V
C1202	1-162-286-31	CERAMIC	220PF	10%	50V
				(EXCEPT ★:A)	
C1202	1-162-290-31	CERAMIC	470PF	10%	50V (★:A)
C1203	1-162-286-31	CERAMIC	220PF	10%	50V
				(EXCEPT ★:A)	
C1203	1-162-292-31	CERAMIC	680PF	10%	50V (★:A)
C1204	1-124-477-11	ELECT	47uF	20%	25V
C1205	1-124-910-11	ELECT	47uF	20%	50V
C1206	1-124-122-11	ELECT	100uF	20%	50V
C1207	1-136-165-00	FILM	0.1uF	5%	50V
C1208	1-124-916-11	ELECT	22uF	20%	63V
C1209	1-164-159-11	CERAMIC	0.1uF		50V
C1210	1-136-163-00	FILM	0.068uF	5%	50V
C1211	1-136-163-00	FILM	0.068uF	5%	50V
C1220	1-124-910-11	ELECT	47uF	20%	50V
C1230	1-161-494-00	CERAMIC	0.022uF		25V (★:A)
C1231	1-161-494-00	CERAMIC	0.022uF		25V (★:A)
C1232	1-161-494-00	CERAMIC	0.022uF		25V (★:A)
C1233	1-161-494-00	CERAMIC	0.022uF		25V (★:A)
C1251	1-124-257-00	ELECT	2.2uF	20%	50V
C1252	1-162-286-31	CERAMIC	220PF	10%	50V
				(EXCEPT ★:A)	
C1252	1-162-290-31	CERAMIC	470PF	10%	50V (★:A)

PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR
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Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
Q1101	8-729-119-78	TRANSISTOR	2SC2785-HFE	(*1, D209)		R1114	1-249-429-11	CARBON	10K	5%	1/4W
Q1102	8-729-141-26	TRANSISTOR	2SC3622A-LK			R1115	1-249-429-11	CARBON	10K	5%	1/4W
Q1121	8-729-900-36	TRANSISTOR	DTC124ES			R1116	1-247-852-11	CARBON	7.5K	5%	1/4W
Q1122	8-729-119-76	TRANSISTOR	2SA1175-HFE			R1117	1-247-852-11	CARBON	7.5K	5%	1/4W
Q1136	8-729-900-36	TRANSISTOR	DTC124ES			R1118	1-249-425-11	CARBON	4.7K	5%	1/4W F
Q1138	8-729-900-36	TRANSISTOR	DTC124ES			R1119	1-249-425-11	CARBON	4.7K	5%	1/4W F
Q1141	8-729-900-63	TRANSISTOR	DTA124ES			R1120	1-249-423-11	CARBON	3.3K	5%	1/4W F
Q1142	8-729-900-63	TRANSISTOR	DTA124ES			R1121	1-249-423-11	CARBON	3.3K	5%	1/4W F
Q1143	8-729-900-80	TRANSISTOR	DTC114ES			R1122	1-247-887-00	CARBON	220K	5%	1/4W
Q1144	8-729-900-80	TRANSISTOR	DTC114ES			R1123	1-249-421-11	CARBON	2.2K	5%	1/4W F
Q1145	8-729-900-61	TRANSISTOR	DTA114ES			R1124	1-249-425-11	CARBON	4.7K	5%	1/4W F
Q1151	8-729-620-05	TRANSISTOR	2SC2603-EF	(*2, D259)		R1125	1-249-433-11	CARBON	22K	5%	1/4W
Q1151	8-729-119-78	TRANSISTOR	2SC2785-HFE	(*1, D209)		R1126	1-249-423-11	CARBON	3.3K	5%	1/4W F (A27)
Q1152	8-729-141-26	TRANSISTOR	2SC3622A-LK			R1127	1-249-436-11	CARBON	39K	5%	1/4W (A27)
	< RESISTOR >					R1130	1-249-412-11	CARBON	390	5%	1/4W F
R601	1-249-429-11	CARBON	10K	5%	1/4W	R1132	1-249-412-11	CARBON	390	5%	1/4W F
R602	1-249-429-11	CARBON	10K	5%	1/4W	R1133	1-249-412-11	CARBON	390	5%	1/4W F
R603	1-249-423-11	CARBON	3.3K	5%	1/4W F	R1135	1-249-433-11	CARBON	22K	5%	1/4W
R604	1-249-437-11	CARBON	47K	5%	1/4W (*4, 8)	R1142	1-249-412-11	CARBON	390	5%	1/4W F
R605	1-249-433-11	CARBON	22K	5%	1/4W	R1143	1-249-433-11	CARBON	22K	5%	1/4W
R606	1-249-433-11	CARBON	22K	5%	1/4W	R1145	1-249-412-11	CARBON	390	5%	1/4W F
R607	1-249-439-11	CARBON	68K	5%	1/4W	R1149	1-249-429-11	CARBON	10K	5%	1/4W
R608	1-249-417-11	CARBON	1K	5%	1/4W F	R1151	1-249-441-11	CARBON	100K	5%	1/4W
R609	1-249-405-11	CARBON	100	5%	1/4W F	R1152	1-249-417-11	CARBON	1K	5%	1/4W F
R610	1-249-429-11	CARBON	10K	5%	1/4W	R1154	1-249-441-11	CARBON	100K	5%	1/4W
R611	1-249-437-11	CARBON	47K	5%	1/4W	R1155	1-249-433-11	CARBON	22K	5%	1/4W
R612	1-249-417-11	CARBON	1K	5%	1/4W F	R1156	1-249-424-11	CARBON	3.9K	5%	1/4W F
R613	1-249-425-11	CARBON	4.7K	5%	1/4W F	R1157	1-249-441-11	CARBON	100K	5%	1/4W
R614	1-249-393-11	CARBON	10	5%	1/4W F	R1158	1-249-427-11	CARBON	6.8K	5%	1/4W F
R621	1-249-433-11	CARBON	22K	5%	1/4W	R1159	1-249-412-11	CARBON	390	5%	1/4W F
R622	1-249-433-11	CARBON	22K	5%	1/4W	R1160	1-249-431-11	CARBON	15K	5%	1/4W
R623	1-249-433-11	CARBON	22K	5%	1/4W	R1161	1-249-439-11	CARBON	68K	5%	1/4W
R624	1-249-433-11	CARBON	22K	5%	1/4W	R1162	1-249-433-11	CARBON	22K	5%	1/4W
R625	1-249-417-11	CARBON	1K	5%	1/4W F (*1, D259)	R1163	1-249-431-11	CARBON	15K	5%	1/4W
R642	1-249-409-11	CARBON	220	5%	1/4W F	R1164	1-249-429-11	CARBON	10K	5%	1/4W
R643	1-249-417-11	CARBON	1K	5%	1/4W F (*2, D209, 8, 10, 11)	R1165	1-249-429-11	CARBON	10K	5%	1/4W
R1065	1-249-409-11	CARBON	220	5%	1/4W F (*2)	R1166	1-247-852-11	CARBON	7.5K	5%	1/4W
R1101	1-249-441-11	CARBON	100K	5%	1/4W	R1167	1-247-852-11	CARBON	7.5K	5%	1/4W
R1102	1-249-417-11	CARBON	1K	5%	1/4W F	R1168	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1103	1-249-431-11	CARBON	15K	5%	1/4W	R1169	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1104	1-249-441-11	CARBON	100K	5%	1/4W	R1170	1-249-423-11	CARBON	3.3K	5%	1/4W F
R1105	1-249-433-11	CARBON	22K	5%	1/4W	R1171	1-249-423-11	CARBON	3.3K	5%	1/4W F
R1106	1-249-424-11	CARBON	3.9K	5%	1/4W F	R1172	1-247-887-00	CARBON	220K	5%	1/4W
R1107	1-249-441-11	CARBON	100K	5%	1/4W	R1173	1-249-421-11	CARBON	2.2K	5%	1/4W F
R1108	1-249-427-11	CARBON	6.8K	5%	1/4W F	R1174	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1109	1-249-412-11	CARBON	390	5%	1/4W F	R1176	1-249-423-11	CARBON	3.3K	5%	1/4W F (A27)
R1110	1-249-431-11	CARBON	15K	5%	1/4W	R1177	1-249-436-11	CARBON	39K	5%	1/4W (A27)
R1111	1-249-439-11	CARBON	68K	5%	1/4W	R1401	1-249-418-11	CARBON	1.2K	5%	1/4W F (A27)
R1112	1-249-433-11	CARBON	22K	5%	1/4W	R1402	1-247-881-00	CARBON	120K	5%	1/4W (A27)
R1113	1-249-431-11	CARBON	15K	5%	1/4W	R1403	1-247-881-00	CARBON	120K	5%	1/4W (A27)
						R1405	1-249-409-11	CARBON	220	5%	1/4W F (*1)

**POWER AMPLIFIER**

**POWER SUPPLY**

Ref. No. Part No. Description Remarks

C1253	1-162-286-31	CERAMIC	220PF	10%	50V	(EXCEPT ★:A)
C1253	1-162-292-31	CERAMIC	680PF	10%	50V	(★:A)
C1254	1-124-477-11	ELECT	47uF	20%	25V	
C1255	1-124-910-11	ELECT	47uF	20%	50V	
C1256	1-124-122-11	ELECT	100uF	20%	50V	
C1257	1-136-165-00	FILM	0.1uF	5%	50V	
C1260	1-136-163-00	FILM	0.068uF	5%	50V	
C1261	1-136-163-00	FILM	0.068uF	5%	50V	
C1280	1-161-494-00	CERAMIC	0.022uF		25V	(★:A)

< CONNECTOR >

\* CN1201 1-564-518-11 PLUG, CONNECTOR 3P  
 \* CN1202 1-564-522-11 PLUG, CONNECTOR 7P

< DIODE >

D1201	8-719-987-63	DIODE	1N4148M
D1251	8-719-987-63	DIODE	1N4148M

< IC >

IC1201	8-749-900-24	IC	STK-4162MK2 (A27, *11)
IC1201	8-749-900-96	IC	STK-4142MK2 (D209, *8, 9, 10)

< COIL >

L1221	1-420-872-00	COIL, AIR CORE
L1251	1-420-872-00	COIL, AIR CORE

< TRANSISTOR >

Q1201	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA
Q1202	8-729-900-80	TRANSISTOR	DTC114ES
Q1203	8-729-620-05	TRANSISTOR	2SC2603-EF (*2, D259)
Q1203	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)
Q1251	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA

< RESISTOR >

R1201	1-249-417-11	CARBON	1K	5%	1/4W	F
R1202	1-249-438-11	CARBON	56K	5%	1/4W	
R1203	1-249-417-11	CARBON	1K	5%	1/4W	F
R1204	1-249-438-11	CARBON	56K	5%	1/4W	
R1205	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1206	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1207	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1208	1-249-425-11	CARBON	4.7K	5%	1/4W	F
△R1209	1-212-881-11	FUSIBLE	100	5%	1/4W	F
△R1210	1-217-151-00	RES, METAL PLATE		0.22		
R1211	1-249-417-11	CARBON	1K	5%	1/4W	F
R1212	1-249-431-11	CARBON	15K	5%	1/4W	
R1213	1-249-441-11	CARBON	100K	5%	1/4W	
R1214	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1215	1-249-421-11	CARBON	2.2K	5%	1/4W	F

Ref. No. Part No. Description Remarks

R1216	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1217	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1218	1-249-397-11	CARBON	22	5%	1/4W	F
R1219	1-249-397-11	CARBON	22	5%	1/4W	F
R1220	1-249-397-11	CARBON	22	5%	1/4W	F
R1221	1-249-397-11	CARBON	22	5%	1/4W	F
R1227	1-249-429-11	CARBON	10K	5%	1/4W	
R1228	1-247-881-00	CARBON	120K	5%	1/4W	
R1229	1-249-439-11	CARBON	68K	5%	1/4W	
R1230	1-249-439-11	CARBON	68K	5%	1/4W	
R1231	1-249-417-11	CARBON	1K	5%	1/4W	F
R1232	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R1238	1-249-433-11	CARBON	22K	5%	1/4W	
R1239	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1241	1-249-383-81	CARBON	1.5	5%	1/4W	F (*3, 5, 7)
R1251	1-249-417-11	CARBON	1K	5%	1/4W	F
R1252	1-249-438-11	CARBON	56K	5%	1/4W	
R1253	1-249-417-11	CARBON	1K	5%	1/4W	F
R1254	1-249-438-11	CARBON	56K	5%	1/4W	
R1255	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1256	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1257	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1258	1-249-425-11	CARBON	4.7K	5%	1/4W	F
△R1259	1-212-881-11	FUSIBLE	100	5%	1/4W	F
△R1260	1-217-151-00	RES, METAL PLATE		0.22		
R1261	1-249-417-11	CARBON	1K	5%	1/4W	F
R1262	1-249-431-11	CARBON	15K	5%	1/4W	
R1263	1-249-441-11	CARBON	100K	5%	1/4W	
R1268	1-249-397-11	CARBON	22	5%	1/4W	F
R1269	1-249-397-11	CARBON	22	5%	1/4W	F
R1270	1-249-397-11	CARBON	22	5%	1/4W	F
R1271	1-249-397-11	CARBON	22	5%	1/4W	F

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\* 1-646-474-11 POWER SUPPLY BOARD

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< CAPACITOR >

C1301	1-161-744-00	CERAMIC	0.01uF		400V
C1314	1-124-122-11	ELECT	100uF	20%	50V
C1315	1-124-927-11	ELECT	4.7uF	20%	100V
C1316	1-124-910-11	ELECT	47uF	20%	50V
C1318	1-124-636-00	ELECT	3300uF	20%	25V
C1348	1-164-159-11	CERAMIC	0.1uF		50V
					(*4, 5, 6, 7, D259)
C1362	1-124-916-11	ELECT	22uF	20%	63V

**Note:**  
 The components identified by mark **△** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

**Note:**  
 Les composants identifiés par une marque **△** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## POWER SUPPLY

Ref. No.	Part No.	Description	Remarks
< CONNECTOR >			

\* CN1301 1-564-321-00 PIN, CONNECTOR 2P  
CN1311 1-506-468-11 PIN, CONNECTOR 3P  
< DIODE >

D1307	8-719-002-60	DIODE	UZL-33L
D1309	8-719-014-66	DIODE	UZP-5.6B
D1311	8-719-200-82	DIODE	11ES2
D1370	8-719-200-82	DIODE	11ES2
D1321	8-719-987-63	DIODE	1N4148M

D1322	8-719-987-63	DIODE	1N4148M
D1354	8-719-200-82	DIODE	11ES2
D1355	8-719-200-82	DIODE	11ES2

&lt; TRANSISTOR &gt;

Q1301	8-729-141-83	TRANSISTOR	2SA473
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&lt; RESISTOR &gt;

R1303	1-249-421-11	CARBON	2.2K 5%	1/4W F
R1304	1-249-425-11	CARBON	4.7K 5%	1/4W F
R1391	1-202-725-00	SOLID	3.3M 10%	1/2W (*11)

&lt; RELAY &gt;

RY1301 1-515-720-11 RELAY  
RY1301 1-515-738-11 RELAY, POWER

&lt; TRANSFORMER &gt;

AT1302 1-449-723-31 TRANSFORMER, POWER (EXCEPT \*11)  
AT1302 1-450-786-11 TRANSFORMER, POWER (\*11)

&lt; VOLTAGE SELECTION &gt;

VS1301 1-572-266-11 SWITCH, VOLTAGE SELECTION (A27)

\*\*\*\*\*

## MISCELLANEOUS

\*\*\*\*\*

18	1-590-578-11	WIRE, FLAT TYPE (19 CORE)
19	1-590-576-11	WIRE, FLAT TYPE (11 CORE)
19	1-590-576-21	WIRE, FLAT TYPE (11 CORE) (D209)
Δ64	1-575-651-11	CORD, POWER (*4, 5, 6, 7, 8, 9)
Δ64	1-575-653-11	CORD, POWER (A27:E)

Δ64	1-690-608-11	CORD, POWER (A27:AU2)
Δ64	1-690-609-21	CORD, POWER (*11)
Δ64	1-696-570-21	CORD, POWER (*3, 10)
Δ64	1-696-848-21	CORD, POWER (*1)
ΔF1301	1-532-350-00	FUSE 4A (A27, D209, *9, 10)

ΔF1301	1-576-108-11	FUSE 4A (*8, 11)
ΔF1302	1-532-350-00	FUSE 4A (A27, D209, *9, 10)
ΔF1302	1-576-108-11	FUSE 4A (*8, 11)

Ref. No.	Part No.	Description	Remarks
----------	----------	-------------	---------

ΔF1303	1-532-203-00	FUSE 2A (D209, *9, 10)
ΔF1303	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)
ΔF1303	1-576-104-11	FUSE 2A (*8)
ΔF1304	1-532-203-00	FUSE 2A (D209, *9, 10)
ΔF1304	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)

ΔF1304	1-576-104-11	FUSE 2A (*8)
ΔF1305	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)
ΔF1305	1-576-105-11	FUSE 2.5A (*8, 11)
ΔF1306	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)
ΔF1306	1-576-105-11	FUSE 2.5A (*8, 11)

ΔT1301	1-423-431-11	TRANSFORMER, POWER (*11)
ΔT1301	1-423-437-11	TRANSFORMER, POWER (D209)
ΔT1301	1-423-437-21	TRANSFORMER, POWER (*8, 9, 10)
ΔT1301	1-423-438-11	TRANSFORMER, POWER (*1)
ΔT1301	1-423-438-21	TRANSFORMER, POWER (*2)

\*\*\*\*\*

## ACCESSORIES &amp; PACKING MATERIALS

\*\*\*\*\*

1-465-963-11	COMMANDER, STANDARD (RM-S271)
1-501-374-11	ANTENNA, LOOP (*4, 5, 7, 8, D259:AE2)
1-501-536-11	ANTENNA (*4, 5, 7, 8, D259:AE2)
1-696-860-11	CORD, CONNECTION 13P (*4, 5, 7, 8, D259:AE2)
3-703-713-41	STICKER, SONY SYMBOL (10)

\*

3-707-584-01	COVER, BATTERY
3-756-331-41	MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/PORTUGUESE) (D209:AE2)
3-756-331-51	MANUAL, INSTRUCTION (GERMANY/DUTCH/SWEDISH/ITALIAN) (D209:AE2, *4)
3-756-331-61	MANUAL, INSTRUCTION (DANISH/FINNISH) (*5)
3-756-333-41	MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/PORTUGUESE) (D259:AE2)
3-756-333-51	MANUAL, INSTRUCTION (GERMANY/DUTCH/SWEDISH/ITALIAN) (D259:AE2, *8)
* 4-956-903-01	INDIVIDUAL CARTON (D209:AE2, *4)
* 4-958-606-01	CUSHION (D209:AE2, *4)

\*\*\*\*\*

## HARDWARE LIST

\*\*\*\*\*

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-871-01	SCREW +BVTT 3X6 (S)

## Note:

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

## Note:

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

English

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— 40 —

# PS-LX52/LX52P

**SONY.  
SERVICE MANUAL**

*US Model  
Canadian Model  
AEP Model  
E Model  
Australian Model  
PS-LX52*

*UK Model  
PS-LX52P*

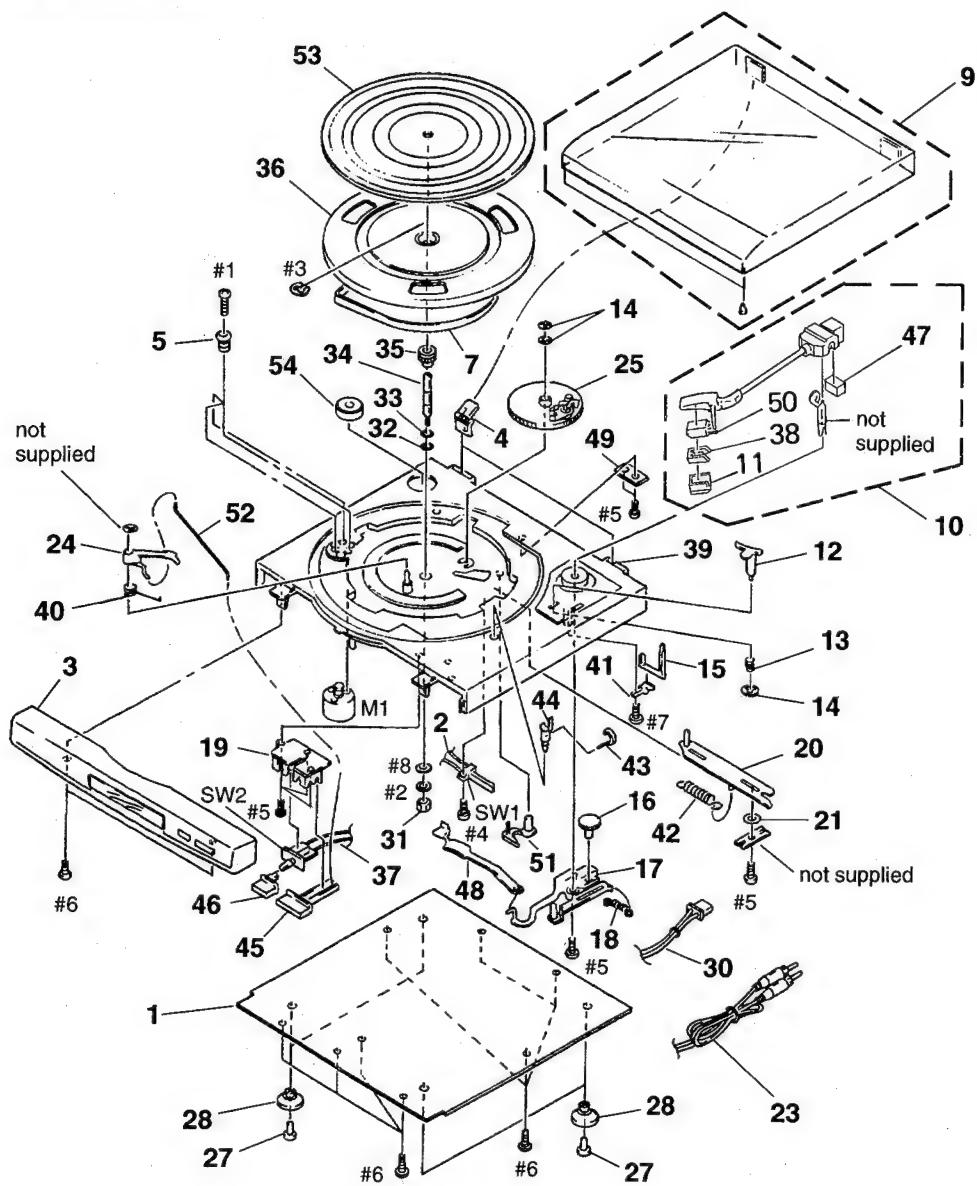
## CORRECTION-1

Correct your service manual as shown below.

**Subject: Correction of EXPLODED VIEW (PS-LX52P)**

(SPM-95043)

### EXPLODED VIEW [PS-LX52P]



Note:

- Item marked "\*" are not stocked since they are seldom required for routine services. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-950-488-01	BOTTOM BOARD		36	4-947-494-01	TURNTABLE PLATTER	
2	1-696-144-11	WIRE (45) (RED)		37	1-696-143-11	WIRE (30) (WHT)	
3	A-4660-303-A	FRONT PANEL ASSY		38	4-951-290-01	STYLUS (CN-234)	
4	4-947-476-01	HINGE		39	4-947-475-01	MAIN CABINET (G)	
5	4-947-505-01	CUSHION MOTOR		40	4-947-496-01	SPRING (34)	
7	4-947-503-01	BELT		41	4-947-477-01	CUEING (BASE)	
9	A-4604-946-A	DUST COVER ASSY		42	4-947-485-01	SPRING (22)	
10	A-4604-940-A	ARM ASSY, TONE		43	4-947-490-01	ARM CLIP	
11	4-948-095-01	COVER, CARTRIDGE		44	4-947-491-01	ARM REST	
12	4-947-466-01	TONE ARM ELEVATOR		45	4-956-997-01	KNOB REJECT	
13	4-947-467-01	SPRING (6)		46	4-956-996-01	KNOB SPEED	
14	4-947-514-01	4MM CS RING		47	4-947-464-01	COUNTER WEIGHT	
15	4-947-468-01	LEVER, CUEING		* 48	4-947-487-01	RETURN LINK	
16	4-947-470-01	ADJUST CAM		* 49	1-644-410-11	PC BOARD	
* 17	4-947-471-01	LINK, RETURN		50	1-251-028-11	CARTRIDGE (MAIN)	
18	4-947-472-01	SPRING (9-1)		51	4-957-000-01	PLASTIC RETURN	
19	4-956-998-01	BUTTON BASE		52	4-948-101-01	SPRING (38)	
20	A-4660-302-A	LEVER RETURN ASSY		53	A-4674-087-A	TURN TABLE MAT ASSY	
21	3-659-350-00	WASHER		54	3-701-806-00	ADAPTOR, 45	
23	1-555-116-11	CORD, PHONE		M1	A-4604-945-A	MOTOR ASSY	
24	4-947-495-01	WIPER REJECT		SW1	1-570-666-11	SWITCH (LEAF)	
25	A-4604-916-A	GEAR ASSY, SPUR		SW2	1-571-089-11	PUSH SWITCH (SPEED)	
27	4-950-497-01	FOOT SEAT		#1	7-621-773-87	SCREW (64)	
28	4-950-490-01	PLASTIC STAND		#2	7-623-210-22	WASHER (57)	
30	1-557-109-21	CORD, DC		#3	7-624-110-04	6MM E RING	
31	4-947-510-01	NUT		#4	7-685-105-01	SCREW (59)	
32	3-451-162-00	WASHER (56)		#5	7-685-647-79	SCREW (58)	
33	3-701-445-21	WASHER		#6	7-685-646-79	SCREW (60)	
34	4-947-498-01	STELL BALL		#7	7-685-645-79	SCREW (68)	
35	4-947-497-01	GEAR		#8	7-688-005-01	WASHER (69)	

# PS-LX52/LX52P

## SERVICE MANUAL REVISED

*US Model*  
*Canadian Model*  
*AEP Model*  
*E Model*  
*Australian Model*  
*PS-LX52*

*UK Model*  
*PS-LX52P*



Photo : PS-LX52

• PS-LX52P is the STEREO TURNTABLE SYSTEM in LBT-D109CD/LBT-A17CD/LBT-D108CD/LBT-D159CD/LBT-D209CD/LBT-D259CD/LBT-D309CD/LBT-D359CD.

### SPECIFICATIONS

#### Turntable

Platter 30cm (12 in.)  
Motor DC servo motor  
Drive system Belt drive  
Speed 33 1/3 rpm/45 rpm switchable  
Wow and flutter 0.2% (WFRMS)  
Signal-to-noise ratio 60 dB (DIN-B)  
Automatic System Return, reject

#### Tonearm

Type Dynamically balanced  
Pivot-to-stylus length 203 mm (8 in.)  
Overall arm length 235 mm (9 1/4 in.)

#### Cartridge

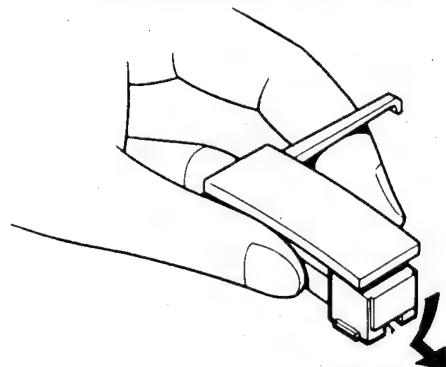
Type Moving magnet type  
Frequency response 20 Hz-20 kHz  
Stylus ND-155G

#### General

Dimensions 355 x 94 x 345 mm (w/h/d)  
(14 x 3 3/4 x 13 5/8 inches)  
Weight Approx. 2.5 kg (5 lb 8 oz)  
Power requirement US, Canadian model: 120V AC, 60 Hz  
AEP, Italian, East European, CIS  
model: 220-230V AC, 50/60 Hz  
UK model: 12V DC  
PX, E, Saudi Arabia, Singapore, Malaysia  
model: 110-120V/220-240V AC,  
adjustable with the voltage selector, 50/60 Hz  
Australian model: 240V AC, 50 Hz  
4W (except UK model)  
45-rpm adaptor (1)  
Replacement stylus ND-155G  
Stylus spray XP-C10  
Cleaner XP-C1, XP-C2

Design and specifications subject to change without notice.

### REPLACING THE STYLUS



Replace the stylus after about 400 hours of use because using a worn stylus will damage records. An ND-155G replacement stylus is available at your Sony dealer.

Be sure to turn the amplifier off before proceeding with replacement.

1. While holding the cartridge, detach the stylus assembly as illustrated.
2. Insert the new stylus into the cartridge.

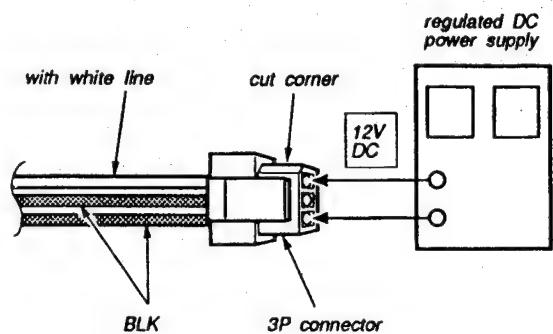
**STEREO TURNTABLE SYSTEM**  
**SONY®**



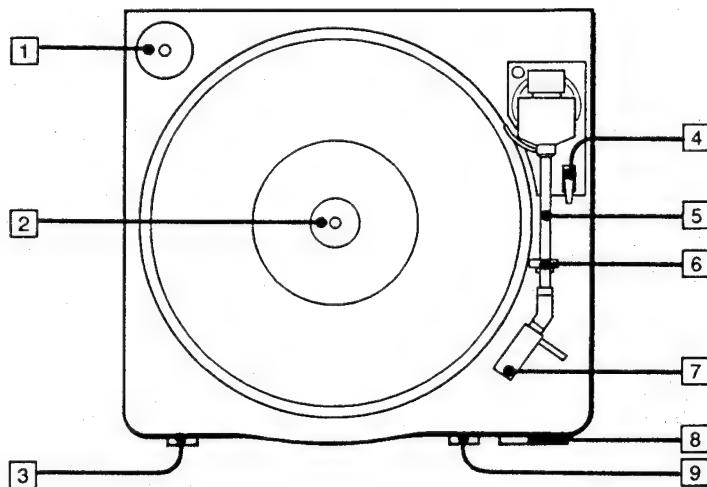
## REPAIRING PRECAUTION (PS-LX52P only)

### [To supply B+ voltage]

The power of this unit is fed from HST model. Because of this, connect the regulated power supply as illustrated right when this unit alone operates.

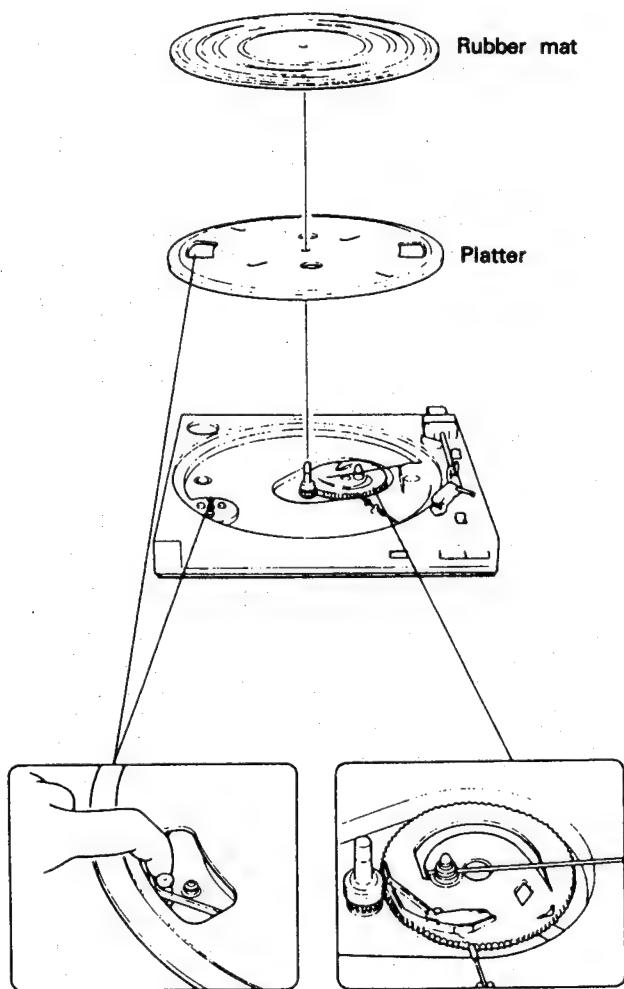


## LOCATION OF CONTROLS



- 1** 45-rpm adaptor
- 2** Center spindle
- 3** POWER switch (PS-LX52 only)
- 4** Cueing lever
- 5** Tonearm
- 6** Arm rest
- 7** Cartridge
- 8** REJECT button
- 9** Speed selector

## TURNTABLE ASSEMBLY

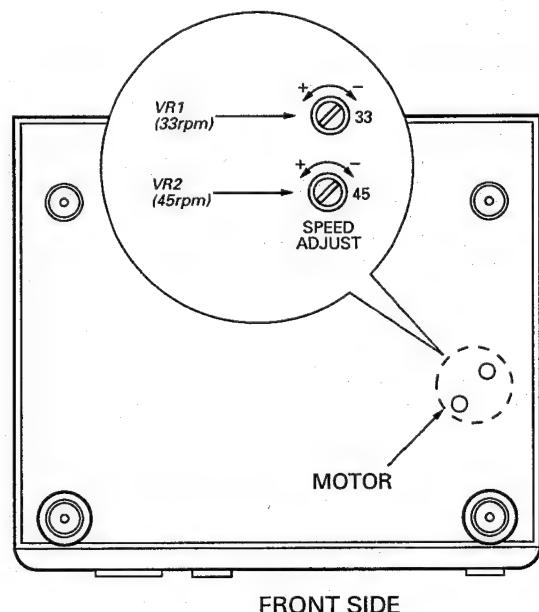


Hook the belt on the motor pulley.  
If the belt is removed from the platter, replace it with the glossy side outward.

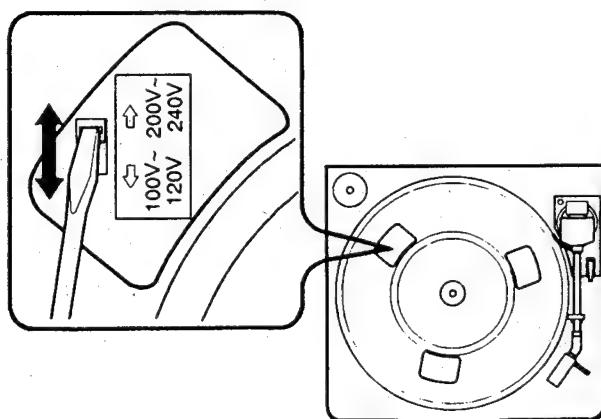
### Speed Adjustment

**Note:** Be sure to perform 45rpm adjustment before 33rpm.

1. Place a stroboscope board on the turntable sheet.
2. Set the SPEED switch to 45.  
Press the START button.  
Adjust VR2 so that the striped pattern of stroboscope board is stationary.
3. Set the SPEED switch to 33.  
Adjust VR1 in the same way.



FRONT SIDE



### Setting the Voltage Selector

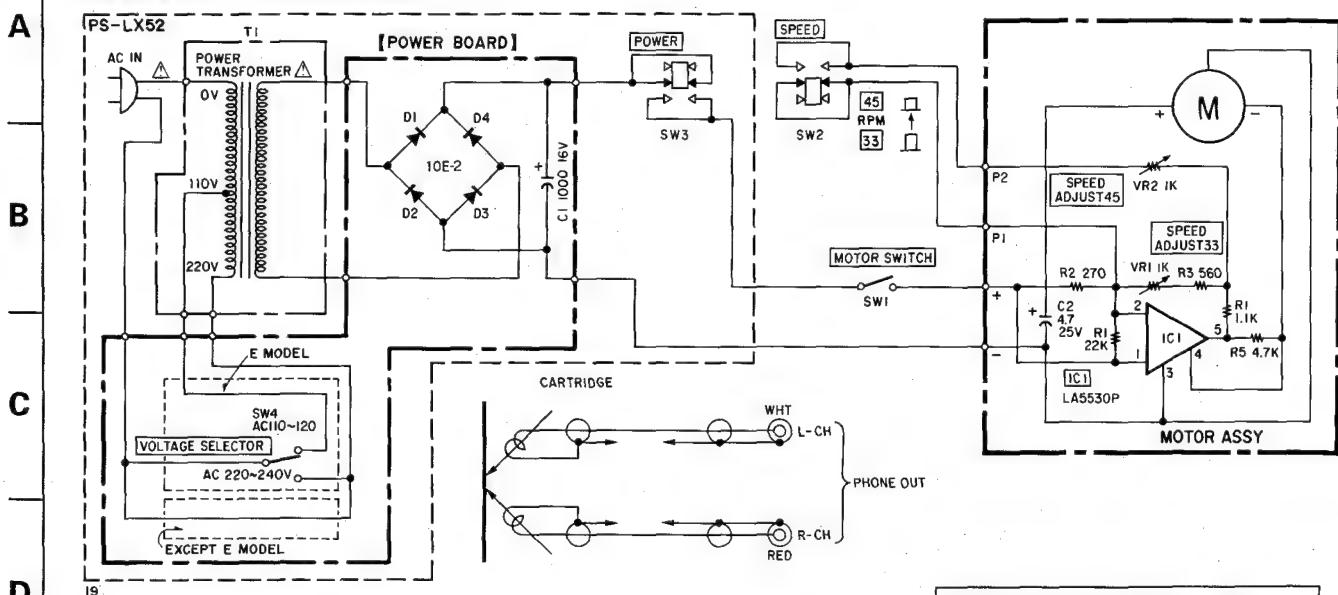
PS-LX52 (E, Saudi Arabia, PX, Singapore, Malaysia model)

**For customers of the model equipped with the voltage selector**

Check to confirm that the voltage selector is set to the local power line voltage. If not, set the voltage selector to the correct position before connecting the AC power cord to a wall outlet.

1 2 3 4 5 6 7

## SCHEMATIC DIAGRAM



## NOTE:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\mu\text{F}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified.

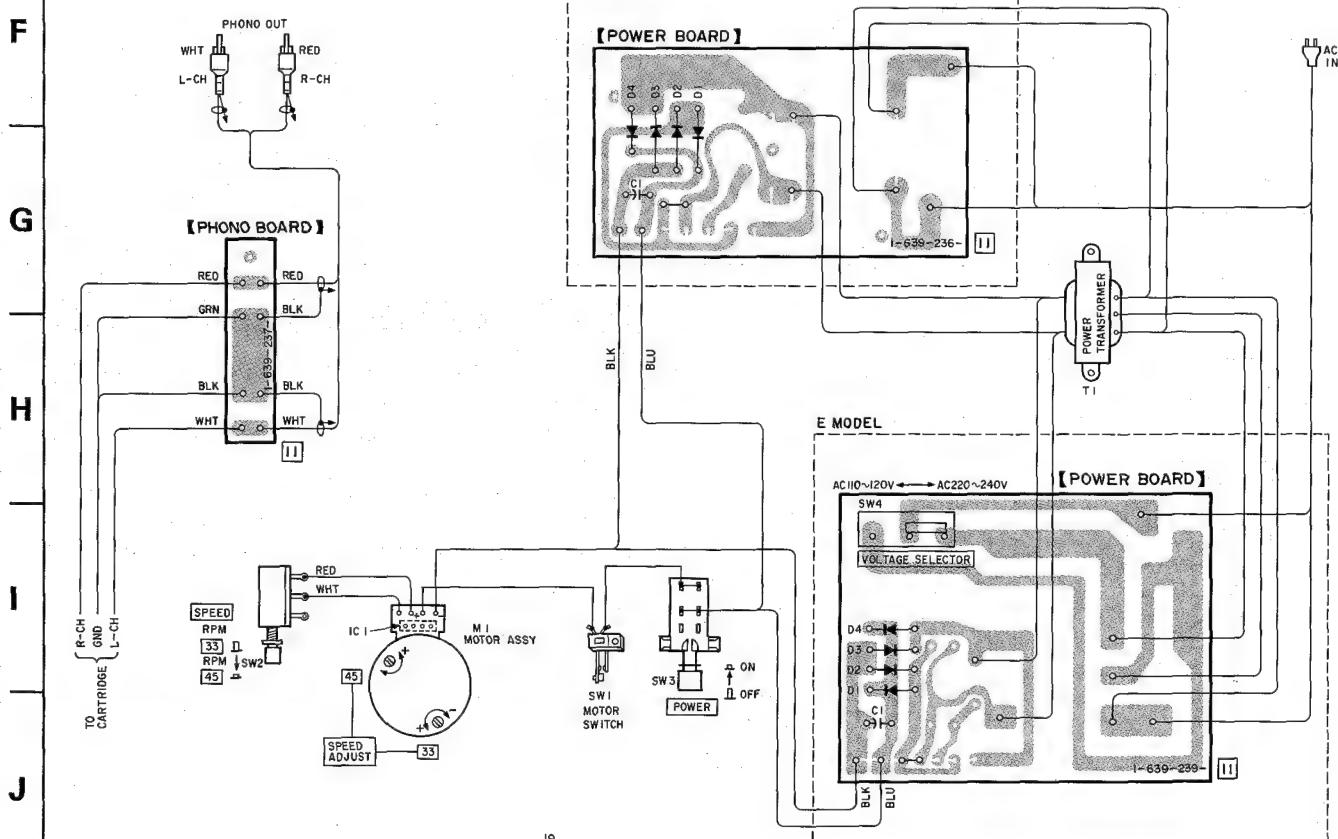
## • Switches :

Ref.No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## WIRING DIAGRAM



1

2

3

4

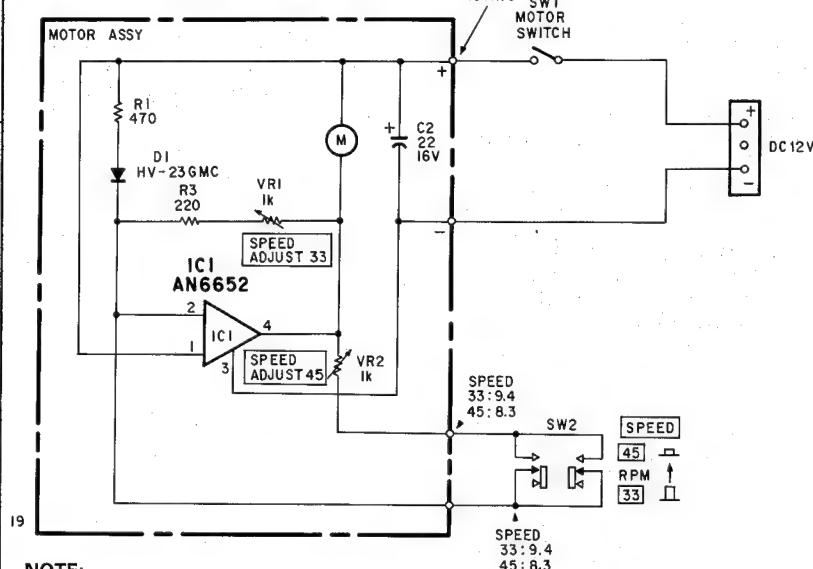
5

6

7

## SCHEMATIC DIAGRAM

A



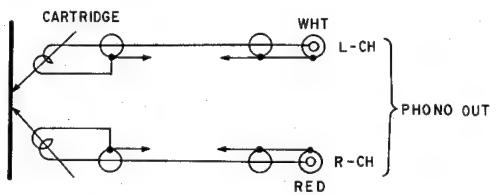
## NOTE:

- All capacitors are in  $\mu$ F unless otherwise noted.  $\mu$ F:  $\mu$ F50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified.

## • Switches :

Ref.No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF

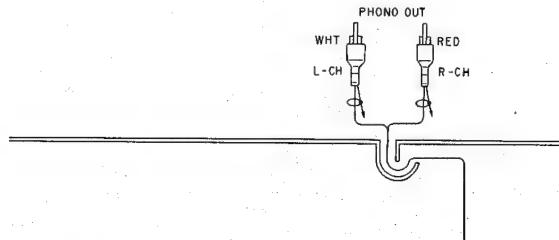
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
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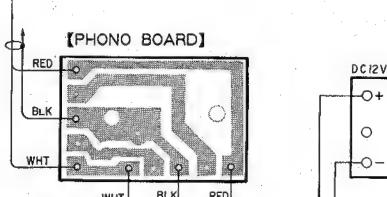
E

## WIRING DIAGRAM

F



G



H

**TO CARTRIDGE**

**L-CH**

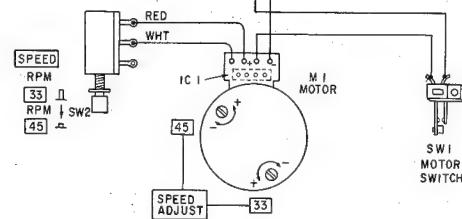
**WHT**

**R-CH**

**RED**

**GND**

**BLK**



## EXPLODED VIEW [PS-LX52]

### NOTE:

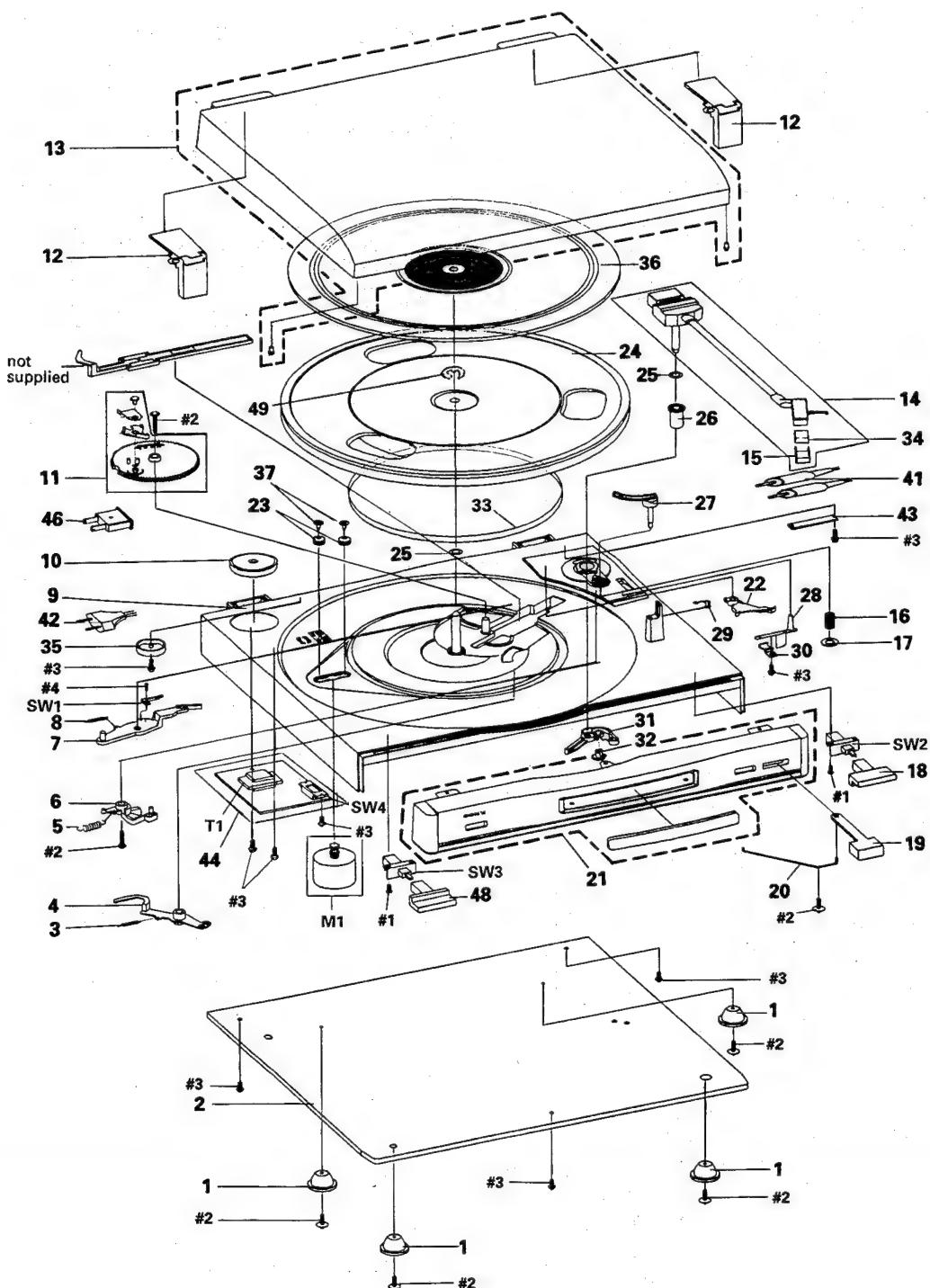
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Screw(# mark) list is given in the last of this parts list.

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

- PX, Saudi Arabia, Singapore and Malaysia models are identical to E model.
- Italian, EE, and CIS models are identical to AEP model.
- AUS: Australian model
- EE: East European model

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-950-472-01	FOOT		28	4-950-440-01	LEVER-CUEING	
* 2	4-958-328-01	COVER-BOTTOM		29	4-950-439-01	LOCKER-ARM	
3	4-950-453-01	SPRING-REJECT		30	4-950-441-01	BRACKET-CUEING	
4	4-950-452-01	LEVER-REJECT		31	4-950-450-01	ARM-FEED	
5	4-950-455-01	SPRING-ELEVATOR		32	4-950-451-01	CAM-ADJUST	
6	4-950-454-01	ELEVATOR		33	4-950-434-01	BELT	
7	4-950-463-01	ARM-CONTROL		34	4-944-756-01	CARTRIDGE (AT-3600LAX)	
8	4-950-464-01	SPRING-CONTROL ARM		* 35	4-950-514-01	WASHER CODE	
* 9	4-950-431-01	CABINET-UPPER		36	A-4660-142-A	RUBBER ASSY, SHEET	
10	4-950-467-01	ADAPTOR-45RPM		37	4-950-469-01	SCREW-SETTING MOTOR	
11	A-4660-140-A	GEAR ASSY, RING		41	1-590-871-11	CORD, CONNECTION (3 CORE)	
12	4-950-432-01	HINGE		△42	1-590-836-11	CORD, POWER (E)	
13	A-4660-138-A	COVER ASSY, DUST		△42	1-551-294-11	CORD, POWER (AEP)	
14	A-4660-384-A	ARM ASSY, TONE		△42	1-696-382-11	CORD, POWER (US, Canadian)	
15	4-944-756-01	STYLUS (ND-155G)		△42	1-696-848-11	CORD, POWER (AUS)	
16	4-950-442-01	SPRING-ELEVATION		43	1-639-237-11	PHONE BOARD	
17	4-950-444-01	WASHER-C/S		44	1-639-239-11	POWER BOARD (E)	
18	4-956-873-01	BUTTON-SPEED		44	1-639-236-11	POWER BOARD (EXCEPT E)	
19	4-956-872-01	BUTTON-REJECT		△46	1-693-159-11	ADAPTER, AC (E)	
20	4-950-448-01	LINK-REJECT		48	4-956-874-01	BUTTON POWER	
21	A-4660-361-A	PANEL (G) ASSY, FRONT		49	4-953-059-01	E RING	
22	4-953-060-01	LEVER, SWITCH		M1	A-4660-141-A	MOTOR ASSY	
23	4-950-470-01	CUSHION-MOTOR		SW1	1-572-746-11	SWITCH, LEAF	
24	4-950-433-01	PLATTER		SW2	1-572-744-11	SWITCH, PUSH (2 KEY) (SPEED)	
25	4-950-435-01	SPACER		△SW3	1-572-744-11	SWITCH, PUSH (POWER)	
26	4-950-436-01	BUSHING-TONE ARM		△SW4	1-572-745-11	VOLTAGE SELECTOR (E)	
27	4-950-437-01	ARM-ELEVATION		△T1	1-450-508-11	TRANSFORMER, POWER	

## ELECTRICAL PARTS LIST [PS-LX52]

### NOTE:

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Replace only with part number specified.

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When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS  
MF :  $\mu$ F, PF :  $\mu\mu$ F

- PX, Saudi Arabia, Singapore and Malaysia models are identical to E model.
- Italian, EE, and CIS models are identical to AEP model.
- AUS: Australian model
- EE: East European model

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	1-639-239-11	POWER BOARD (E)		△SW4	1-572-745-11	VOLTAGE SELECTOR (E)	
	1-639-236-11	POWER BOARD (EXCEPT E)		△T1	1-450-508-11	TRANSFORMER, POWER	
	*****			*****	*****	*****	*****
	< CAPACITOR >			ACCESORIES & PACKING MATERIALS	*****		
C1	1-124-360-00	ELECT	1000 $\mu$ F 20% 16V	*	4-947-532-01	SNOW BOX (L)	
				*	4-947-533-01	SNOW BOX (R)	
	< DIODE >			*	4-956-071-01	INDIVIDUAL CARTON	
D1-4	8-719-200-02	DIODE 10E-2		3-756-211-11	MANUAL, INSTRUCTION (English, French, Spanish, Portuguese) (AEP, Canadian)		
	*****			3-756-211-21	MANUAL, INSTRUCTION (English) (US)		
	MISCELLANEOUS		*****	3-756-211-41	MANUAL, INSTRUCTION (German, Dutch, Swedish, Italian) (AEP)		
	*****			3-756-211-51	MANUAL, INSTRUCTION (English, French, Spanish, Chinese) (E, AUS)		
41	1-590-871-11	CORD, CONNECTION (3 CORE)		3-756-211-61	MANUAL, INSTRUCTION (English, German, Polish, Russian) (EE, CIS)		
△42	1-590-836-11	CORD, POWER (E)		*****	*****	*****	*****
△42	1-551-294-11	CORD, POWER (AEP)		HARDWARE LIST			
△42	1-696-382-11	CORD, POWER (US, Canadian)		#1	7-685-246-19	SCREW +KTP 3X8 TYPE2 NON-SLIT	
△42	1-696-848-11	CORD, POWER (AUS)		#2	7-685-903-21	SCREW +PTPWH 3X8 TYPE2	
43	1-639-237-11	PHONE BOARD		#3	7-685-546-19	SCREW	
△46	1-693-159-11	ADAPTER, AC (E)		#4	7-685-104-11	SCREW +P 2X6 TYPE2 NON-SLIT	
SW1	1-572-746-11	SWITCH, LEAF					
SW2	1-572-744-11	SWITCH, PUSH (2 KEY) (SPEED)					
△SW3	1-572-744-11	SWITCH, PUSH (POWER)					

## EXPLODED VIEW [PS-LX52P]

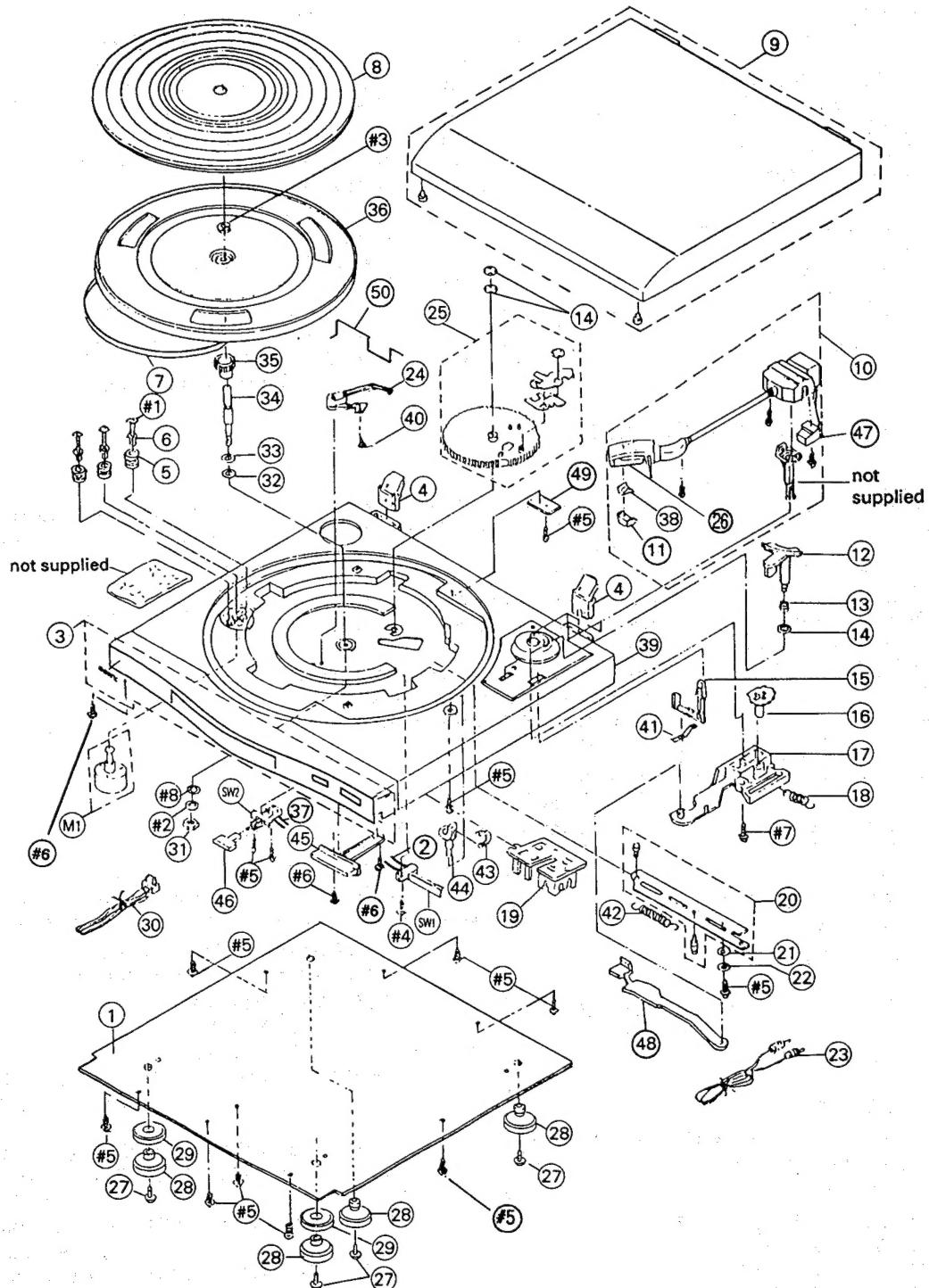
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Replace only with part number specified.



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-950-488-01	BOTTOM BOARD		6	4-947-504-01	COLLAR	
2	1-696-144-11	WIRE (45) RED		7	4-947-503-01	BELT	
3	A-4660-303-A	PANEL (G) ASSY, FRONT		8	A-4674-087-A	TURN TABLE MAT ASSY	
4	4-947-476-01	HINGE		9	A-4604-946-A	DUST COVER ASSY	
5	4-947-505-01	CUSHION, MOTOR					

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
10	A-4604-940-A	ARM ASSY, TONE		30	1-557-109-21	DC CORD	
11	4-948-095-01	COVER CARTRIDGE		31	4-947-510-01	NUT	
12	4-947-466-01	TONE ARM ELEVATOR		32	3-451-162-00	WASHER (56)	
13	4-947-467-01	SPRING (6)		33	3-701-445-21	WASHER	
14	4-947-514-01	4MM CS RING		34	4-947-498-01	STELL BALL	
15	4-947-468-01	LEVER, CUEING		35	4-947-497-01	GEAR	
16	4-947-470-01	ADJUST CAM		36	4-947-494-01	TURNTABLE PLATTER	
* 17	4-947-471-01	LINK, RETURN		37	1-696-143-11	WIRE (30) (WHT)	
18	4-947-472-01	SPRING (9-1)		38	4-951-290-01	STYLUS (CN234)	
19	4-956-998-01	BUTTON BASE		39	4-947-475-01	MAIN CABINET (G)	
20	A-4660-302-A	LEVER RETURN ASSY		40	4-947-496-01	SPRING (34)	
21	3-659-350-00	WASHER		* 41	4-947-477-01	CUEING (BASE)	
22	4-890-173-00	WASHER		42	4-947-485-01	SPRING (22)	
23	1-555-116-11	PHONO CORD		43	4-947-490-01	ARM CLIP	
24	4-947-495-01	WIPER REJECT		44	4-947-491-01	ARM REST	
25	A-4604-916-A	GEAR ASSY, SPUR		45	4-956-997-01	KNOB REJECT	
26	1-251-028-11	CARTRIDGE (MAIN)		46	4-956-996-01	KNOB SPEED	
27	4-950-497-01	FOOT SEAT		47	4-947-464-01	COUNTER WEIGHT	
28	4-950-490-01	PLASTIC STAND		* 48	4-947-487-01	RETURN LINK	
29	4-950-489-01	FOOT RING		49	1-644-410-11	P.C BOARD	
				50	4-948-101-01	SPRING (38)	

## ELECTRICAL PARTS LIST [PS-LX52P]

### NOTE:

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Replace only with part number specified.

When indicating parts by reference number, please include the board name.

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- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

### Ref. No. Part No. Description

23	1-555-116-11	PHONO CORD
30	1-557-109-21	DC CORD
* 49	1-644-410-11	P.C BOARD
M1	A-4604-945-A	MOTOR ASSY
SW1	1-570-666-11	SWITCH (MOTOR)
SW2	1-571-089-11	PUSH SWITCH (SPEED)

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ACCESSORIES & PACKING MATERIALS  
\*\*\*\*\*

- \* 4-947-532-01 SNOW BOX (L)
- \* 4-947-533-01 SNOW BOX (R)
- \* 4-957-002-01 CARTON

### Remarks Ref. No. Part No. Description

### Remarks

### HARDWARE LIST

#1	7-621-773-87	SCREW +B 2.6X10
#2	7-623-210-22	SW4, TYPE 2
#3	7-624-110-04	STOP RING 6.0, TYPE-E
#4	7-685-105-19	SCREW +P 2X8 TYPE 2 NON-SLIT
#5	7-685-647-79	SCREW +BVTP 3X10 TYPE 2 IT-3
#6	7-685-646-79	SCREW +BVTP 3X8 TYPE 2 IT-3
#7	7-685-645-79	SCREW +BVTP 3X6 TYPE 2 IT-3
#8	7-688-005-01	W5, SMALL

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